

60-131/4

STAT

8 April 1960

Handwritten: [Signature]
Honorable Glenard P. Lipscomb
House of Representatives
Washington 25, D. C.

Dear Mr. Lipscomb:

During the Director's absence from the city your letter of April 4 was referred to me. I know I can speak for Mr. Dulles when I say that he too enjoyed the S. O. S. breakfast on March 30th. I know he enjoys meeting with such groups and particularly in such an informal manner.

As you know, the matter of publication of classified information in the public press is of concern to Mr. Dulles and many others in official circles. I believe the Appropriations Hearings before the Defense Subcommittee on March 24, 1960, which you enclosed, illustrate one aspect of this problem. This particular item will be brought to Mr. Dulles' attention upon his return.

On behalf of the Director I would like to express his thanks for your continued interest in the Agency. As in the past, if you believe we can be of any assistance at any time please do not hesitate to call on us.

Sincerely,

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SIGNED

John S. Warner
Legislative Counsel

OGC/LC:JSW:mks (7 April 60)

EXCISE SUBJECT FILE

Congress of the United States
House of Representatives
Washington, D. C.

April 4, 1960

60-~~273~~
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Honorable Allen Dulles, Director
Central Intelligence Agency
2430 E Street, N. W.
Washington, D. C.


Dear Mr. Director:

It was a real pleasure to listen to your discussion with the S.O.S. at breakfast on Wednesday morning, March 30th. I always enjoy your very analytical approach to the great problems which confront you.

During the discussion the matter of the publication of classified information in the public press was brought up. Perhaps you have already had the opportunity to review the hearings which were held before the Appropriations Subcommittee on Defense on March 24, 1960, but in the event you have not, I would like to call to your attention the testimony on page 71 of the printed copy of these hearings.

Again, may I express my thanks for the time that you so generously spend with us at the S.O.S. breakfasts.

Sincerely yours,


Glenard P. Lipscomb
Member of Congress

GPL:bl
Enclosure

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR 1961

HEARINGS BEFORE THE SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS HOUSE OF REPRESENTATIVES EIGHTY-SIXTH CONGRESS SECOND SESSION

SUBCOMMITTEE ON DEPARTMENT OF DEFENSE APPROPRIATIONS GEORGE H. MAHON, Texas, *Chairman*

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ALBERT THOMAS, Texas	

SAMUEL W. CROSBY, *Staff Assistant to the Subcommittee*

REAPPRAISAL OF AIR DEFENSE PROGRAM REVISIONS IN 1960 AND 1961 AIR FORCE PROGRAMS

Printed for the use of the Committee on Appropriations



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UNITED STATES
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WASHINGTON : 1960

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DEPARTMENT OF DEFENSE APPROPRIATIONS
FOR 1961

THURSDAY, MARCH 24, 1960.

REAPPRAISAL OF AIR DEFENSE PROGRAM
REVISIONS IN 1960 AND 1961 AIR FORCE PROGRAMS

WITNESSES

GEN. THOMAS D. WHITE, CHIEF OF STAFF, U.S. AIR FORCE
MAJ. GEN. H. M. ESTES, JR., ASSISTANT DEPUTY CHIEF OF STAFF,
OPERATIONS, U.S. AIR FORCE
MAJ. GEN. B. K. HOLLOWAY, DIRECTOR OF OPERATIONAL RE-
QUIREMENTS, DEPUTY CHIEF OF STAFF, OPERATIONS, U.S. AIR
FORCE
MAJ. GEN. R. J. FRIEDMAN, DIRECTOR OF BUDGET, COMPTROLLER
OF THE AIR FORCE
HON. LYLE S. GARLOCK, ASSISTANT SECRETARY OF THE AIR
FORCE (FINANCIAL MANAGEMENT)
MAJ. GEN. H. C. DONNELLY, ASSISTANT DEPUTY CHIEF OF STAFF,
PLANS AND PROGRAMS, U.S. AIR FORCE
MAJ. GEN. B. J. WEBSTER, DIRECTOR OF PROGRAMS, DEPUTY CHIEF
OF STAFF, PLANS AND PROGRAMS, U.S. AIR FORCE
COL. D. L. CROW, DEPUTY DIRECTOR OF BUDGET, COMPTROLLER OF
THE AIR FORCE
COL. E. B. RASMESSEN, SPECIAL ASSISTANT TO THE CHIEF OF
STAFF, U.S. AIR FORCE
LT. COL. FRED H. DIETRICH, CHIEF, MISSILE SECTION, WEAPONS
BRANCH, AIR DEFENSE DIVISION, DIRECTORATE OF OPERA-
TIONAL REQUIREMENTS, U.S. AIR FORCE
BRIG. GEN. R. H. CURTIN, DEPUTY DIRECTOR FOR REAL PROP-
ERTY, DIRECTORATE OF CIVIL ENGINEERING, DEPUTY CHIEF
OF STAFF, OPERATIONS, U.S. AIR FORCE
MR. L. C. MEYER, CHIEF, RESEARCH, DEVELOPMENT, AND MISSILE
DIVISION, DIRECTORATE OF BUDGET, COMPTROLLER

Mr. MAHON. Secretary Garlock, General White, we are pleased to have you and your associates before the committee this morning. We understand that you have very significant statements to make. We understand that there have been some tentative changes in important programs. Whether or not they have been finalized, I do not know. You will, of course, give us that information.

We realize that this business of defense is a fast-moving business and that decisions made yesterday may not necessarily be the best decisions today. We have to react to the situations which exist; we have to react to facts as they are and not as we might want them to

be. There is much uncertainty in this whole picture, and no one can know with complete assurance just what should be done in each and every instance.

I wish you would proceed in your own way to present your proposals.

General WHITE. Thank you, sir. I have a prepared statement with which to lead off, if I may.

Mr. MAHON. We will not interrupt you.

GENERAL STATEMENT OF CHIEF OF STAFF, U.S. AIR FORCE

General WHITE. Mr. Chairman and members of the committee, first of all, I would like to express my appreciation to the committee for this opportunity to further discuss the Air Force's fiscal year 1961 budget estimates.

I am here to request your consideration of a substantial adjustment to the President's fiscal year 1961 budget request. The Department of Defense has approved my presentation of these recommendations today; however, the Department of Defense is not yet prepared to approve our recommended addenda in substance.

Mr. Chairman, you will note that I have made a change from the prepared script and have used the word "addenda" in place of the word "revisions." The reason is that these recommendations have been made by the Department of the Air Force and the Department of Defense has approved the deducts but has not approved "addenda" in substance. DOD has only approved the addenda for presentation.

REASONS FOR PRESENTATION PRIOR TO DEPARTMENT OF DEFENSE APPROVAL OF REVISED PROGRAM

Mr. MAHON. I would think it appropriate to state that there had been an indication from the Department of Defense through Deputy Secretary Douglas that it would be desirable for us to postpone this hearing a few days in order to perhaps get a more authoritative report from the Bureau of the Budget, but we are concluding our hearings soon. We must get busy with important decisions as to what we want to do, so we could hardly afford to mark time. Moreover, Mr. Sheppard and some of the other members of the committee are heavily engaged in the bill on military construction.

Furthermore, as I understand it, you are going, as our country's representative, to a meeting in the Middle East, at Teheran.

General WHITE. Yes, sir.

Mr. MAHON. Under the circumstances, I told Secretary Douglas that it did not seem desirable to try to postpone this meeting until after Secretary Gates returned from the NATO meeting he is attending, which I understand will be concluded in early April. I think we all understand the problem to which you make reference.

CHANGES IN AIR DEFENSE SYSTEM

General WHITE. First, I am recommending major changes in the air defense system we had previously programed. These revisions result in an overall program reduction in the fiscal year 1961 budget on the order of \$500 million. Second, I further propose that in order to expedite the improvement of our overall military posture certain critical projects be substituted.

Specifically, my recommendations are:

- (a) Reorient the air defense ground environment system by canceling the SAGE super combat center program.
- (b) Further limit the BOMARC B program.
- (c) Adjust our air defense programs to assure earlier completion of the revised system.
- (d) Expand our intercontinental ballistic missile program.
- (e) Improve our fighter-interceptor force.
- (f) Accelerate space and ground systems to provide warning against ballistic missile attack.

Attached to your copy of my prepared statement is a summary listing of the fall-outs and of the recommended add-ons, as well as the program dollars associated therewith.

I will discuss briefly why this revised program is advisable and the advantages we expect to gain for national security. Members of my staff will cover the specific changes in detail in their presentations to follow.

Three primary objectives will be attained by the actions we are recommending today. These are: (1) More timely completion of an improved defense against the air breathing threat; (2) acceleration of systems designed to provide ballistic missile warning; and (3) an improved deterrent posture.

The revised air defense system will have capabilities substantially greater than those we currently possess. These will be obtained through significant improvements in the capabilities of our Century series interceptors and modernization of our current radar coverage. The units in the revised BOMARC program will be concentrated to strengthen the area defense of the industrial Northeast. In addition, the completed air defense system will be operational at least 2 years earlier than the system it replaces.

We would accelerate our systems to provide ballistic missile warning under this proposal.

ACCELERATION OF BALLISTIC MISSILE PROGRAM

To improve our overall deterrent posture, we propose an expanded ATLAS program and additional funds for the MINUTEMAN program.

In conclusion, I should like to give this committee my earnest opinion that the proposal I have discussed today represents a significant step toward improving our existing air defenses and enhancing our future deterrent posture.

General Estes will, at your pleasure, continue to give more details of the changes in the system which we propose, to be followed by General Holloway, who will discuss the additions we propose, and finally General Friedman will be prepared to discuss the budgetary aspects of these changes.

Mr. MAHON. Proceed, General Estes.

GENERAL STATEMENT OF ASSISTANT DEPUTY CHIEF OF STAFF, OPERATIONS, U.S. AIR FORCE

BIOGRAPHICAL SKETCH OF WITNESS

Maj. Gen. Howell M. Estes, Jr., was born at Fort Oglethorpe, Ga., September 18, 1914. He received his commission after his graduation from the U.S. Mili-

tary Academy in 1936. In July 1939 he began flying training and after graduating from primary and advanced flying schools was rated a pilot and transferred to the Air Corps on March 23, 1940. During the Korean conflict, General Estes was assigned as vice commander of the Far East Air Forces Bomber Command, in which capacity he served from March 1951 until July 1951. Throughout his career General Estes has been closely associated with strategic and atomic test operations. In October 1952 he was designated commander, Air Task Group 7.4, Joint Task Force 7 for the atomic test known as Operation Castle. In August 1954 he was assigned to Wright-Patterson Air Force Base, Ohio, and at that location became assistant deputy commander for weapon systems, Headquarters, Air Research and Development Command. On August 15, 1957, he was reassigned to Headquarters, U.S. Air Force, Washington, D.C., as the Assistant Chief of Staff for Air Defense Systems with further assignment with the headquarters, in May 1958, as Assistant Deputy Chief of Staff, Operations, which position he holds at the present time. General Estes has been awarded the Legion of Merit with two oak leaf clusters, Distinguished Flying Cross, American Defense Service Medal, American Campaign Medal, World War II Victory Medal, Occupational Medal for Germany and Japan, Korean Service Medal, National Defense Medal, the United Nations Service Medal, Air Medal with one oak leaf cluster, and Czechoslovakian War Cross.

(The prepared statement of General Estes follows:)

Mr. Chairman and members of the committee, General White has covered the overall changes that we are recommending in our fiscal year 1961 budget. As he mentioned, we are proposing very substantial changes in our program for defense against manned aircraft. The purpose of my presentation is to cover these changes in air defense in more detail and to compare the program originally presented to you with that which we are now recommending.

In order to refresh your memory, I will begin by showing in simplified form the sequence of events that occurs in conducting air defense. As an enemy aircraft approaches the country, the first function that must occur, of course, is that of detection. This is accomplished primarily by the use of radar and is illustrated by these figures on this first chart (chart No. 1). Having detected an aircraft approaching the country, the next functional step is to determine whether it is, in fact, an enemy aircraft or a friendly aircraft. This function is called that of identification and is performed by a combination of steps. The final determination is made by the air defense commander with the aid of the electronic computers in the SAGE direction centers shown here. Assuming the incoming aircraft to have been identified as hostile, the next functional step is that of determining the most effective weapon to use and issuing instructions for that weapon to begin the interception. This function we call control, and it is also performed in the SAGE direction centers. It is, of course, necessary to communicate continuously with the interceptors after they are launched in order to insure actual interception. This requires communications from ground to air and is our next functional area. Finally, the actual interception and destruction occurs, using one or more of the weapons available to the air defense system. Therefore, our final function is that of interception.

In order to preserve an orderly sequence, our presentation will be made in this same order by the functions of detection, identification, control, communications, and interception.

Beginning first with detection, you will recall that this function is performed by a variety of equipments using radar techniques. Most of these radars are installed on ground sites. This type of radar provides for detection of relatively high-flying aircraft and is supplemented by a larger number of smaller radars whose purpose is to detect low-flying objects. These smaller radars are called "gap fillers." In order to extend the range at which we are able to first detect aircraft over the seaward approaches, we also have radars mounted in aircraft. These are called "airborne early warning and control aircraft." I am sure that you can appreciate that these equipments are, in essence, the eyes and ears of our whole defense system and, consequently, must be of the highest possible reliability and performance. For the past few years we have been engaged in a major program to upgrade the radar system. Because of the high importance of achieving very effective and reliable detection, our revision of the air defense program does not materially change our previous radar program.

The next functional area is that of identification. Procurement of ground and airborne equipment for this function has been completed with prior year

funds. No appreciable change is being made to these installations in our recommended program.

The next area—that of control—is performed primarily by the SAGE computer system, with which, I am sure, you are all familiar. You will recall that when we applied the SAGE computers to air defense, the United States was divided into a number of operational sectors. In each air defense sector is located a direction center equipped with a large electronic computer. Also located in each division is a combat center where the division commander supervises the air defense battle over the entire division area. The program supported by our original fiscal year 1961 budget called for completion of the direction centers and three of the combat centers, and in addition, a number of hardened facilities called supercombat centers, which would have been deployed throughout the United States and southern Canada. As stated by General White, we are recommending today that this program be deleted. With the deletion of the super combat centers, it is obvious that certain rearrangements to the SAGE system are necessary. Cancellation of super combat centers also leaves us without division headquarters facilities for three divisions. However, with some modification of already built facilities, we plan to alleviate this deficiency. Since our recommended program is much reduced, it is expected to be completed earlier.

The next function that I will cover is that of communications. As I stated previously, these are the communications required to direct the weapons to their target and consist of ground radio installations connected to the SAGE control centers. Equipment for these stations has all been placed on procurement with prior year funds. Construction of some of the stations and antennas remains to be funded in the fiscal year 1961 budget. As you would expect, these stations are deployed throughout the air defense system wherever the associated weapons are deployed. As a result of the changes in types and deployment of weapons that I will cover shortly, it is possible to reduce to some extent the number of communication stations required.

This completes my discussion of the functions that are performed on the ground in air defense. I will now discuss the all important function of interception.

The primary weapons to accomplish the interceptor function are the F-102, the F-101B, the F-106, and BOMARC.

The F-102 is a delta wing, single place, all weather interceptor currently armed with a GAR-1 and GAR-2 FALCON missiles. The F-102 can operate at 50,000 feet at speed up over mach 1. In 1961 this aircraft will be equipped with improved armament.

Recommended changes are to reduce this program by a small number of squadrons in fiscal year 1961. These squadrons are to be phased into the Air National Guard in the same time period. Also recommended as add-on's to our current program are certain modifications.

Another of our manned interceptors is the F-101B. This is a two place, two engine, all weather interceptor armed with MB-1 nuclear rockets and with FALCON missiles. The F-101B can operate above 50,000 feet at speed up to 1,200 miles per hours. There are no changes recommended in the number of operational units or aircraft for this portion of the program. However, there are aircraft modifications and improvements recommended.

Another one of our interceptors is the F-106—a delta wing, single place, all weather interceptor armed with nuclear rockets and GAR-3 and GAR-4 FALCON missiles. The F-106 holds the current world's speed record for operational aircraft of 1,525.9 miles per hour.

No changes are recommended to the composition of this force. However, as shown for the previous interceptors, there are certain modifications and improvements recommended as add-on's to our current program. These include modifications required to standardize the F-106 fleet.

Also, we have the BOMARC surface-to-air missile. This is a supersonic nuclear armed missile capable of defense against hostile aircraft and cruise-type missiles.

It is recommended that the BOMARC "B" portion of this program be reduced.

The deployments planned for the current program and the area coverage which these weapons will provide is depicted by a series of charts. In order to indicate the contemplated capability of all weapons currently planned for allocation to CINCNORAD control, I show:

- (a) First the location and coverage of the NIKE-HERCULES batteries.
- (b) The BOMARC program.
- (c) The location of manned interceptor squadrons of the regular force.

(d) The location of the manned interceptor squadrons of the Air National Guard.

(e) The coverage provided by BOMARC.

(f) The coverage provided by the manned interceptors.

The deployments and resultant coverage which can be provided with the recommended weapons is indicated by these charts. With the exception of BOMARC the deployments to be shown are intended as illustrative deployments only. NORAD has not completed detailed studies required to determine optimum deployments for this revised family of weapons.

(a) The NIKE-HERCULES deployment is identical to that shown with the current program.

(b) The operating locations provided by the reduced BOMARC program.

(c) The location of the manned interceptor squadrons of the regular force.

(d) The location of the Air National Guard manned interceptors.

(e) The coverage provided by the reduced BOMARC program.

(f) And, lastly, the coverage provided by the manned interceptor forces.

This concludes this portion of the presentation. General Holloway will cover recommended program additions.

GENERAL ESTES. Mr. Chairman and members of the committee, it is my purpose to amplify General White's remarks by covering for you in some detail a comparison between the program which we have recommended for air defense and that which we now propose. Although this committee is certainly well informed on air defense, I think it might be worth while to refresh your memory first on the major functions that we perform in air defense in conducting an intercept, because it is of these functions that I will speak of the air defense system. I will break it down into each function.

With our air defense system, obviously our first function is that of detection. We must insure that we have a target to begin with. Through the various radar devices, which are shown pictorially on this chart, we perform this function of detection. This is done by various equipments using radar techniques.

The second function is that of identification, as shown here. This function is conducted essentially by the electronic devices which we have airborne and on the ground, which query each other to determine whether the aircraft involved is friend or foe. Furthermore, through the use of the electronic computers in the direction centers, the sector commander correlates flight plans from the FAA with the information he has on the aircraft coming in on its track. By this means he determines whether the aircraft is friend or foe.

Having determined that the aircraft is hostile, he then dispatches a weapon on the track of the target. During this period we refer to what we know as control. This is to say that the weapon must be controlled on its course toward intercept. This it does by means of continuing to obtain radar information on the track of the aircraft and through the use of the electronic computers in the direction centers the weapon directors are able to control the aircraft toward the target.

The next function during the time that the interceptor is on its way to its target, it must be given constant course direction. This is accomplished by the ground-air communications we have, as shown here. The final function is that of interception with the weapon actually being vectored to an intercept with its target.

Now, under each of these four headings—detection, identification, control, communications, and interception—I will discuss our present program and the changes that are related to it.

DETECTION

The first function is detection. As I have said previously, this function is performed by a variety of equipments using radar techniques. The main backbone of the detection force is the heavy radars, which are, for the main part, located on ground-based station. This is a typical station, this is known as an FPS-24 modern radar station. Now, in addition to those radars, which do the job mainly at medium and high altitudes, reaching way out, getting targets far in advance, we require smaller radars known as gap fillers, of which this is a picture, which are located in between the heavy radars. They provide the low-altitude coverage below the lobe of the heavy radar and in-between lobes of consecutive heavy radars.

In addition to this, we require information out over the ocean areas of approaching targets, particularly at low altitudes. For this purpose we put radars in aircraft. This is typical of one, a Lockheed aircraft known as the RC121D, which is our airborne early warning and control vehicle.

All of these equipments which I have just discussed are vitally important to air defense. If you do not have modernized or competent radars, you obviously have no air defense capability at all. Therefore, we consider the part of the system which I am discussing now, detection, as the most vital part of the system.

We attempted various fixes on these radars to improve their electronics countermeasure countering capability, but these are not entirely successful, particularly against the advanced electronics countermeasures we expect in the future.

Therefore, we have been involved in the past few years in a program of modernization of these radars, the heavy radar of which I showed you a picture a moment ago, FPS-24, is one of those modern, currently designed radars, which will provide us the modernization we have to have. These radars are not only far superior in range, altitude, resolution, but they have designed into them means to counter electronics countermeasures.

This program has the unfortunate name of frequency diversity. I am afraid that people have not understood exactly what that term means and, therefore, do not understand that the real purpose of it is to modernize the radars we have available in this country.

Now, the coverage which the program we recommended to you in this budget will provide is as shown here. The orange on the chart is essentially coverage which is contemplated to be provided by present-day types of radars. There are differences between these types of radars. The radars up on the DEW line are far superior to some of the radars shown in orange on these areas.

The red represents the coverage which will be provided by the modernized radars as they become available. Off the coasts in red is the coverage that will be provided by the airborne early warning and the control aircraft.

Now, in our revised program the change is as shown here. There is one thing I should mention. You also see some green areas on the chart, this area and over here. These are additional extensions to the DEW line which are provided by Navy airborne early warning and control aircraft as well as by some non-NATO radars that are installed here in Iceland.

The flip that I just took off the chart shows the reduction in coverage in this area and on the west coast, which is possible in airborne early warning and control coverage due to modifications in the weapons program, which I will discuss just a little bit later.

Furthermore, within the interior of the United States there are certain radars which I have just taken off here which we believe possibly can be decommissioned. They are older-type radars. We are currently discussing this with Norad and believe these radars can be taken out.

This then, as shown on this chart, is the final coverage that we will have from radar under our proposed reduction.

This chart shows the phasing by fiscal year of the detection program as it would have come in according to the program which we have submitted to you already. In each year it shows how much of the program would be completed by that year. As you can see, the program would complete with the final few percentage out here in ———.

The next chart shows the revisions which we recommend in our proposed program. We slide some of the program further forward so as to get these modernized radars in a little bit earlier throughout the program. However, essentially the final completion, the last few radars, still come into the program in ———.

IDENTIFICATION

The next area, sir, is identification. On this chart you see the geographical distribution of 236 ground stations that provide the querying transmission system to the electronic equipment on board the aircraft to determine whether it is friend or foe. All of these sites have been previously funded out of previous fiscal years. They are installed.

In the event we deactivate the radars in the center of the country that I mentioned a few moments ago, certain of these sites will not be required and can be deactivated. There are some 32 sites in this part of the country that will be deactivated in the event that the radars which I mentioned are decommissioned.

Some years ago when we applied the SAGE computer to Air Defense for purposes of air defense, we divided the United States into several geographical areas. The heavy lines which you see on the chart are what we know as Air Defense divisions or, as Norad calls them, Air Defense regions. The dotted lines represent air defense sectors.

In each of these sectors there is a direction center from which the sector commander directs the air battle within the sector. In each division there is a combat center from which the division commander supervises the overall air battle and allocates weapons to the various sector commanders.

As far as the direction center is concerned, this is a photograph of a direction center building. The computer equipment, the various displays, the sector commander, and the weapon and intercept directors are inside this building.

SAGE SUPERCOMBAT CENTERS

Our original program that we submitted to you in 1961 called for 20 of these sector direction centers and 3 combat centers located with-

in these yellow areas. In addition to this, this was the original SAGE program, which was not to have automatic SAGE control.

This chart shows the phasing of the total of eight supercombat centers as they would have come into the program in accordance with our initial 1961 recommendations to you. As you can see, the program would have been completed in 1964. For a variety of reasons constructionwise, as well as difficulties in integrating this entire system, in our recent analysis of this program we feel that quite probably this date would have slipped further out toward 1965 or fiscal year 1966. As you can see, therefore, this tremendous system would have been considerably late in coming in.

Our proposed program, therefore, has as its purpose, as General White stated, getting in a system against the threat at the earliest possible date. This will provide 98 percent completion of the program in _____. The remaining 2 percent represents completion of the _____ sector up in Canada so that the entire system will be complete in _____.

Mr. MAHON. General Estes, is it proposed that these charts be placed in the record or not?

General ESTES. You have them, sir, already in the material.

Mr. MAHON. But is this sort of information to be included in our printed record or is it secret?

General FRIEDMAN. I think we will have to examine each of them. We certainly would want to give some indication in support of the committee's approval or disapproval, as the case may be. I am not prepared to state right now, Mr. Chairman, that they could go in exactly as they are, but certainly I believe we can provide a picture that explains the change.

Mr. MAHON. We do not want any information in the printed record that should not be there. Of course, this chart here is very meaningful. If we should have an early printing of this hearing, we want to bear in mind the difficulties involved with respect to clearance.

General ESTES. We will immediately examine that, sir, and do the best we can in providing charts which can be published in the record.

COMMUNICATIONS

The next area, sir, is communications. This shows a total of 154 ground-air transmitter sites that were included in the program submitted to you in this fiscal year 1961 budget. These sites are what is known as time division data link sites. They provide automatic contact between the SAGE centers and the BOMARC as well as the fighter-interceptors. They work with the data link equipment that is on board our fighter-interceptors and the BOMARC.

Due to changes in the weapon distribution and employment and the types of weapons, as well as due to some of the changes which I mentioned earlier with reference to taking out some of these interior radars, this is the communications distribution which we recommend in our proposed revision of the program. This will be a reduction to 144 sites from 154.

The schedule for this program is as shown on this chart. This is the way it would have been for the 154 sites in our initial program and the flip on the chart shows how the program will complete with the reduced number of time division data link sites.

Mr. MAHON. You will complete the program in ———?

General ESTES. That is correct, sir. This is largely due to the fact that you are reducing the number of sites.

INTERCEPTION

From here I would like to go to the problem of interception and talk about our various weapons. The first weapon is the F-102. This is a picture of it. This aircraft is a Delta wing, single place. It is an all-weather interceptor, currently armed with the Falcon missile—namely, with the GAR-1 and GAR-2.

F-102

The F-102 can operate up to 50,000 feet and at speeds at the maximum up over mach 1. In ——— the GAR-1 and GAR-2 missiles, which this aircraft now carries, will be replaced by a missile which will be known as the GAR-11, which is a guided nuclear weapon with a very small nuclear yield. This will tremendously increase the capability of this F-102 aircraft.

The current program is as shown here. I would like to remark to the committee, sir, if you attempt to compare these various figures for total F-102's, which I have shown on this chart, with information which may have been submitted to you by General Friedman, you will not find that they directly compare. These are programmed operational aircraft in operational units, as I display them here. You appreciate the fact that in addition to this we have aircraft in depots undergoing modifications; we have command support and attrition aircraft that are not shown here, but these are the operational aircraft in operational units.

I should also mention, sir, that in the light blue I am showing the aircraft which are overseas. The dark blue represents the F-102 aircraft as programmed to be in the North American air defense system.

Currently there are ——— in the program to round out through ——— squadrons. Our recommendations on the F-102, sir, are that in fiscal year 1961 all of the aircraft which we planned for our inventory start phasing out of our inventory to the Air National Guard, and that the green line here shows the buildup for Air Defense and Air National Guard units equipped with F-102's.

As you recognize, the Guard is largely equipped now with F-86s and other such aircraft. It has been our purpose here to attempt to bring the Guard fully into the Air Defense act, and utilize the services in which they are most competent.

Our recommended program shows the various squadrons which will be in the U.S. inventory in red. (Discussion off the record.) The remainder of the squadrons phase into the Guard.

The reason for the disparity in figures, if you add these up here, is because the additional aircraft that I mentioned that we have in depots coming back from overseas, et cetera, become available to fill up these Guard units. So the F-102's, as far as the USAF inventory under our proposed revision, will phase out the units going into the Guard.

With reference to the 102, we intend in our program to complete certain modifications. The first is to complete the installation of time division data link, the electronic equipments of time division data

link, in all of the F-102 aircraft, so that the communications sites that I showed you a moment ago can communicate automatically with these F-102 aircraft.

We have this installed in practically the entire fleet now. All this does is to install it in the rest of the fleet so that the Guard aircraft can operate with the same communications system that our regular Air Force aircraft will be operating with.

The second modification is to improve the low level kill capability of these aircraft. Right now, because of problems of radar clutter which the aircraft radar and missile see, it is difficult to achieve an assured intercept at low levels. Our purpose here, and as you will see in the other weapons which I mention a little bit later, we intend to improve this low level kill capability.

F-101-B

The next is the F-101-B, a picture of which is shown here. This aircraft, as you can see, is two-place. It has a pilot and a radar operator and, further, it is two-engine.

This aircraft has the MB-1 rocket, not these two which are shown here (indicating).

This is the reverse side. These are FALCON rockets but in addition to the armament door it carries an MB-1 nuclear rocket known as the GENIE. This aircraft can operate up to 50,000 feet and it can go to a speed of 1,200 miles per hour. The current program is as shown here. There will be a maximum point of ——— squadrons phasing down to ——— because of attrition by the end of the 1964 time period.

We do not propose any change in this program for these aircraft in our revision. This is a fine interceptor and is doing a good job.

As you can see by the overlay, the program remains exactly the same in our revised recommendation as it did in the original. There is one exception to that as shown on the next chart, which is the improvement modifications we intend for the F-101-B. As is the case with the F-102 this aircraft did not fully get the time division data link installation in production. We will complete equipping the fleet with that and, furthermore, this aircraft, because it is going to be one of the backbone interceptors in the fleet for some time to come, must have further improvements in capability.

We intend first to provide certain improvements which will give it a greater ability to counter electronic countermeasures. These are mainly modifications to the fire control system and they do not do anything to the aircraft itself. They are modifications to the fire control system and radar on the aircraft to give it a better capability to counter electronic countermeasures.

Secondly, we intend to improve the nuclear kill capability of this aircraft and as we get further out in the program, the MB-1 rocket, although nuclear, is not the system we would like to have on the F-101-B.

The reason is that as time goes on, any potential enemy has a better electronic countermeasure capability and it becomes extremely difficult to get range information to utilize the MB-1 nuclear rocket and you have got to have precise range information. Therefore, we in-

tend to equip this aircraft with the GAR-11 missile I mentioned for the F-102 in place of the MB-1 in this later time period.

This will give us a much greater assurance of nuclear kill.

Finally, we want to improve its low level capability by the same modification as on the F-102.

General Holloway is going to talk in more detail about some of these in reference to add-ons, but I will say that a very considerable number of modifications are involved in this ECM modification of the F-101-B.

F-106

The third aircraft is the F-106 and a picture of that is shown here.

This is a single engine aircraft, single place, all weather. This is the aircraft that currently holds the world speed record of 1,525.9 miles per hour. This is a very fast airplane.

The next chart shows our current program of building up to through ——— squadrons at the maximum point and phasing down because of attrition by the end of the ——— time period. As with the F-101-B, as the overlay shows, we do not contemplate any change in this program. As with the F-101-B, there is one exception to that and that is in terms of modifications we intend to provide.

This airplane is an extremely complex airplane and as it has gone into production and out into the inventory, we have found that we needed a number of modifications to bring it up to design standards. Therefore, the final aircraft coming off of the production line will incorporate all of these modifications. This being a very potent weapons system, we want to go back and pick up all of the modifications that were incorporated in production on those aircraft that got out of production before we had the modifications, before we had the fixes complete. In other words, we want to standardize the F-106 fleet.

Again, we want to get time division data links in those aircraft which did not get them in production. We want to improve the capability of this aircraft electronic-counter measures-wise and do it by providing a better low-level kill capability.

BOMARC

The next chart shows BOMARC and this is the operational BOMARC in a shelter at McGuire Air Force Base.

The next chart shows the BOMARC program as it was presented in the 1961 budget projected. There would have been seven A squadrons and I would like to make a point clear here so we all know what we are talking about when we refer to squadrons. The squadrons of the IM-99-A of the initial BOMARC have a unit equipment of ——— missiles. There are ——— of these squadrons in the program but they are located on five bases.

The first two bases had two ——— unit equipment squadrons on the base.

In the B program we intended, when we presented the 1961 program, to have a total of ——— of these ——— unit equipped squadrons. These would be located on a total of 16 bases so that we had, with the inclusion of the A bases that were included, all bases at ——— missiles. The program buildup is as shown here so that at the end of

the program we would have had ——— operational BOMARCS including both A's and B's. The breakdown here would have been ——— A missiles and ——— B missiles. The revised program which we are recommending to the committee is as shown here.

At the end of the program there would be the ——— A missiles which are already going on pad and ——— operational B missiles. It would reduce the B program from 29 squadrons of the type I mentioned a moment ago down to ———. It would reduce the total number of bases on which BOMARC would be deployed from 18 down to ———.

TOTAL INTERCEPTORS

The next chart shows you a summary of what interceptors we would have had on the blue line against time versus the number of interceptors that we will now have with the revised program. For example, in 1963, including all the BOMARCS and fighter interceptors, we would have had ——— total interceptors.

Mr. MAHON. In referring to interceptors, I believe you have made it clear that you are referring to aircraft and missiles?

General ESTES. Aircraft and missiles.

Mr. MAHON. You are counting an aircraft as one unit and a missile as one unit? You are considering them to be equal in your evaluation?

General ESTES. That is correct.

In that connotation, there would be ——— total interceptors in 1963.

In the Regular Air Force program we have shown you there would be ——— interceptors in the same time period. However, the total number of interceptors in the North American Air Defense System would be ——— up at this point (indicating) because of the build-up of the F-102 and the Air National Guard which I mentioned earlier, which is represented here (indicating).

The total actually drops then including the Guard.

I would like to show you by means of a couple of charts here the differences between what the NORAD weapons capability would have been under our fiscal year 1961 proposal and then what they would be under the proposal as revised.

On this chart we have shown the locations and the coverage of the 139 NIKE batteries that are included in the NORAD system. Obviously, this is not part of our program but you have got to show this as a part of the total coverage.

The second chart shows the 18 locations in green for the BOMARC.

The next overlay shows the squadrons of the Regular Force in the yellow dots.

The next chart shows the 37 locations of the current Air National Guard squadrons.

The next chart shows the coverage which would have been provided by the 18 BOMARC locations.

You would have had this much air defense coverage with it (indicating).

The final chart shows the coverage that would have been provided by the fighter interceptors, both the 37 squadrons of the Guard and the squadrons in the Regular Air Force.

This is the total coverage capability that would have been available within the NORAD system.

Obviously, the darker areas here indicate that you have got more coverage in that area due to the BOMARC and the fighters. These areas show where you would just have fighters and the purple dots show what you would have in fighter and NIKE-HERCULES coverage.

REVISED PROGRAM

The next chart shows how this is modified by our revised program. We will have the same 139 NIKE batteries located here (indicating). In discussing this point, I would like to mention that what I am going to show you is how it would look if the Air Force were deploying the fighters in this particular program. Obviously, the question of deployment is a question that is up to General Kuter.

I am showing you a representative deployment and the coverage you would get from it. If General Kuter wants to shift the fighters around——

Mr. MAHON. Would you please identify General Kuter for the record?

General ESTES. He is the commander of the North American Air Defense Command.

The purple dots are still the locations and the coverage of the NIKE-HERCULES.

The next chart shows the sites in the reduced BOMARC program in this area in green [indicating].

I would mention that with reference to these sites and with reference to the proposed operational missiles, we would tell General Kuter that these are the sites we are talking about so we would not construct sites in other parts of the country. He can deploy the missiles however he so desires on these particular sites which have been constructed.

The next chart shows the reduced squadrons of USAF interceptors in the orange dots.

Finally, these dots show the same location as at present for the Air National Guard squadrons. The coverage which would be provided by BOMARC in the locations is as shown here [indicating].

Finally, the coverage from the reduced fighter interceptor squadrons, plus BOMARC, plus HERCULES, that will be available with our revised program is as shown here.

Mr. MAHON. Would you please take off that last overlay and let us look at it again? Talk about that a little further, General.

General ESTES. As I have shown, there are —— locations of BOMARC which start down here [indicating] at Langley and go up through the Canadian sites through Bangor, Maine, in the United States and through the two Canadian sites and out to Duluth, which is the westernmost site.

These will provide coverage in the area as is shown here [indicating].

Mr. MAHON. Is that the whole BOMARC program for the future as recommended today?

General ESTES. In our revised program this is the entirety of the BOMARC program.

Mr. MAHON. We will talk about that later.
Proceed.

General ESTES. To put back on the other flip, this then is the final total coverage which the commander of NORAD would have available to him under our revised program.

This completes my material, sir.

Next is General Holloway who will talk to you about the recommended additions to our program in place of the air defense cancellations which we have mentioned.

TOTAL FUND REDUCTIONS IN PROPOSED PROGRAM

Mr. MAHON. General Friedman, please refresh our minds at this point on approximately how much money will be freed, so to speak, from the original 1961 budget program as heretofore presented to us by the proposed changes presented today.

General FRIEDMAN. Yes, sir.

The reductions which General Estes has indicated would represent a decrease in requirement for new obligating authority in the amount of \$516.7 million. The addenda which General Holloway will discuss would require an increase in new obligating authority in the amount of \$393 million. Considering both fiscal years, the net result in terms of new obligating authority, compared to the President's budget submission, would effect a reduction—net savings—of \$138.7 million. If you just made a simple subtraction of the two larger figures that I have given you, it would indicate a decrease in NOA requirement of \$123.7 million.

However, certain of these reductions took place in fiscal year 1960, against appropriations already enacted. The net savings there would be \$15 million. In total, then, the President's budget could be reduced in the amount of \$138.7 million.

Mr. MAHON. You mean the President's fiscal year 1961 budget which was presented in January could be reduced in that amount if we followed precisely this new recommendation of the Air Force?

General FRIEDMAN. That is correct.

Mr. MAHON. I think that is clear enough, but we will have a further statement from you later.

Proceed.

General HOLLOWAY. Mr. Chairman, for the sake of brevity and to maximize the time for questions, I would like to read my statement.

Mr. MAHON. You read very well. Proceed.

GENERAL STATEMENT OF DIRECTOR OF OPERATIONAL REQUIREMENTS, USAF

BIOGRAPHICAL SKETCH OF WITNESS

General Holloway was born in Knoxville, Tenn., on September 1, 1912. He graduated from the U.S. Military Academy in 1937, from California Institute of Technology (aero engineering) in 1941, Air Command and Staff School in 1947, and the National War College in 1951.

He received his pilot rating in 1938, and held various assignments in fighter units, including Chenault's Flying Tigers, which he joined in 1942 and commanded as the 23d Pursuit Group early in 1943. Since World War II he has been assigned as Director of Air Defense and Director of Plans, Headquarters, ADC; Deputy Commander of the 9th and 12th Air Forces; and he has held Pentagon assignments in Plans, Research, and Development, and Requirements. He assumed his present duty in July 1959.

General Holloway is credited with 13 enemy aircraft destroyed during World War II in 110 combat missions. His decorations include the Silver Star, Legion

of Merit with Oak Leaf Cluster, Distinguished Flying Cross with Oak Leaf Cluster, Air Medal with two Oak Leaf Clusters, Commendation Medal with Oak Leaf Cluster, Chinese Order of the Sacred Tripod, and Chinese Pilot Wings. He is a command pilot with over 4,500 flying hours.

GENERAL HOLLOWAY. Mr. Chairman and members of the committee, the Air Force is proposing some additions as priority items for improving our national defense. As brought out by General White, some of these additions are tailored principally toward aircraft or airborne missile defenses, some toward ICBM defenses, and some toward increased offensive strength. I will give, first, a résumé of the current program; second, the changes or additions proposed; and, third, the net effects realized.

MANNED INTERCEPTOR PROGRAM

The first and foremost conclusion to be reached in considering the package of recommended changes just presented by General Estes is that the responsibilities of our manned interceptors have appreciably increased. The F-101's, F-102's, and F-106's are our area defense weapons, and these are the weapons which must, insofar as possible, fill our requirements. There is quite a bit that can be done to improve the capability of these aircraft to do this job, and these things can be done for relatively modest costs.

The F-101B and the F-106 will remain in the inventory for many years.

The ASG-18 long-range pulse doppler radar and GAR-9 air-to-air missile have been under development since 1956. These two subsystems, originally programed for the F-108, are the heart of the long-range interceptor concept and represent a tremendous improvement over present fire-control systems and missiles. The fire-control system has the capability of detecting a B-47 type target head on at very long range. This long range plus the ability to search from very low to very high altitudes would allow us to locate targets with only crude DEW line information, or to operate in areas where the ground environment has been degraded.

The GAR-9 missile is being developed to insure a high degree of kill capability against targets detected by the ASG-18. This missile can be launched at targets from both low and high altitudes and can kill at long range. Firing from high altitudes, this missile attains a velocity of many times the speed of sound and will be effective against targets flying at great speeds.

Fire control systems and air-to-air missiles have historically been the pacing items in the development of air defense interceptors. A substantial effort was expended in the development of these two subsystems before the F-108 was canceled. Development has continued on a reduced scale, and to date we have accumulated over ——— hours of operating time on the radar, of which ——— hours was airborne in B-25 and T-29 test aircraft. We consider it extremely wise to continue this program on a modest basis.

BALLISTIC MISSILE EARLY WARNING

Turning now to those efforts which we propose for improving our defenses against ballistic missiles, we would like to accelerate the

ballistic missile early warning system to the greatest practicable extent. This chart shows conditions of ICBM warning coverage with and without the third site. The solid red areas are those parts of the United States which will receive no warning of missiles launched from the cross-hatched areas. One depicts a low trajectory attack and the other a medium trajectory attack. With site III completing the system, all of the United States will be afforded warning, as indicated on the left block of the vugraph.

Because of our concern over the phasing of the threat relative to the implementation of our ballistic missile detection system, we have studied the program to determine what expediting action is possible.

Here is shown what we are buying for the additional funds requested. The costs are mainly in additional labor and, as indicated, represented expedited construction, emplacement and integration, and test of the electronic components. Advanced training schedules and certain airlift requirements are also included.

The primary objectives of the Discoverer program are to develop components, subsystems, and satellite system reliability; also, to design, develop and demonstrate the ancillary equipment that goes with orbiting vehicles.

The Discoverer is contributing directly to two of the Nation's most important programs, in addition to supplying design data for other space programs. The contributions made to the SAMOS and MIDAS efforts by DISCOVERER are basic airframe, attitude control, command and program functions, orbit ejection, and recovery techniques.

We need to provide additional THOR boosters and Agena vehicles for further development of components or systems to be used in a space environment. The Air Force has provided funds to protect the lead time for both the Department of Defense and NASA future THOR booster requirements.

The DISCOVERER program is of vital importance to continued development of MIDAS.

It became apparent in 1958 that the advancement in IR detection capabilities warranted the priority development of a satellite-based ICBM detection system. MIDAS will provide instantaneous warning of individual ICBM launches. MIDAS will provide the United States with a highly reliable ICBM attack alarm system.

The infrared sensing devices will detect the launching of any ballistic missile as soon as it gets above approximately 50,000 feet, and will relay this detection to a ground readout station for immediate relaying to the appropriate users. This system will provide continuous surveillance of the entire U.S.S.R. The warning time available from Midas will be appreciably greater than that afforded by BMEWS. This will provide time to start count downs, scramble the airborne retaliatory forces, alert the active and civil defenses, and alert BMEWS for verification of attack.

The current program as reflected in our present budget provides for R. & D. launches at low altitude from the AMR. The first of these was launched on February 26, 1960, with a failure in the separation mechanism between the first and second stages.

This completes the aerospace defense items which we are recommending.

ATLAS PROGRAM

I will now discuss improvements we propose for our offensive forces.

We recommend changing the configuration of some of our ATLAS squadrons. You see the effects of these changes depicted here in relation to the overall program.

Beginning at the left, the first five columns indicate designation, location, hardness, operational date, and the number of missiles on launchers under the present schedule. The next column, in red, indicates the number of missiles on launchers under this proposal, and in the last column are shown the dates the squadrons will be completely equipped if these dates differ from presently programmed operational dates.

Funds to be programmed in fiscal year 1960 will cover costs of excavation, and building brick and mortar facilities to include launchers, launch operations buildings, and related real installations. The remaining funds will be programmed in fiscal year 1961 for missiles, ground support equipment, installation, and equipment checkout.

In using funds for ATLAS in this way, we are getting the same number of missiles on launchers that we would get by building additional squadrons; however, since no new squadron support facilities are required, this increase in force strength is being obtained more economically than it would be if totally new squadrons were purchased. This addition to the force, as you can see, comes very appropriately in the critical time period.

Mr. Chairman, this concludes my delineation of the additions proposed.

Mr. MAHON. We will proceed with General Friedman's statement. He will relate this proposed change in programs to dollars. General White and the others have covered the broad outlines, but you will give us the details, will you not?

General FRIEDMAN. Yes, Mr. Chairman.

GENERAL STATEMENT OF DIRECTOR OF BUDGET, U.S. AIR FORCE

General FRIEDMAN. Mr. Chairman and members of the committee, the purpose of my presentation is to discuss the fiscal aspects of the program changes which have been discussed by General White in broad terms, and by General Estes and General Holloway in some detail.

Summary of changes

[Millions]

	Fiscal year 1960	Fiscal year 1961
Current programs	\$2,807.0	\$2,793.2
Revised programs	2,792.0	2,669.5
Adjustments	-15.0	-123.7

The air defense programs and missile and space programs involved in these adjustments total more than two and one half billion in both fiscal year 1960 and fiscal year 1961. In fiscal year 1960, the effect of air defense net reductions of \$146.8 million and missile, missile warning, and space program increases of \$131.8 million is

an overall program reduction of \$15 million. Funds in this amount, if not otherwise reprogramed in the meantime, would be available to offset in part our fiscal year 1961 or fiscal year 1962 requirements, thereby reducing the new obligational authority request for either year.

For fiscal year 1961, the air defense program net reduction aggregates \$516.5 million. Offsetting against this amount the \$393 million additive requirements for missiles, missile warning, and space programs leaves us a net reduction of \$123.7 million in program requirements—and in new obligational authority required—for fiscal year 1961.

With the committee's permission, I will touch upon each of the major program segments involved in these adjustments and state the dollar effect of each adjustment.

BOMARC program

[Millions]

	Fiscal year 1960	Fiscal year 1961
Current program.....	\$394.1	\$421.5
Revised program.....	394.1	40.4
Adjustments.....		-381.1

The greatest single program adjustment is in the BOMARC program, which reflects a downward adjustment of \$381 million in fiscal year 1961 in the "Missile Procurement" appropriation. As was stated earlier, this is predicated upon a decision to curtail BOMARC B production.

SAGE program

[Millions]

	Fiscal year 1960	Fiscal year 1961
Current program.....	\$280.2	\$235.2
Revised program.....	138.4	102.8
Adjustments.....	-141.8	-132.4

Another quite substantial adjustment is in the SAGE program. This is comprised of reductions of \$141.8 million in fiscal year 1960 and \$132.4 million in fiscal year 1961. Both the military construction and the other procurement segments of the program are involved in both years' adjustments.

Identification and control program

[Millions]

	Fiscal year 1960	Fiscal year 1961
Current program.....	\$31.8	\$18.3
Revised program.....	28.5	15.5
Adjustments.....	-3.3	-2.8

The identification and control program reflects decreases of \$3.3 million in the current year and \$2.8 million in fiscal year 1961. Both military construction and other procurement are affected. These amounts derive from reductions in certain equipments in these programs.

Interceptor improvement program

[Millions]

	Fiscal year 1960	Fiscal year 1961
Current program.....	\$109.8	\$96.9
Revised program.....	108.1	232.6
Adjustments.....	-1.7	+135.7

In the interceptor improvement program, which involves the F-101, F-102, F-106, and GAR-11 programs, we reduce the fiscal year 1960 programs for military construction by \$1.7 million, and in the fiscal year 1961 programs we propose a decrease of \$0.5 million in military construction and an increase of \$136.2 million in aircraft procurement, for a net program increase of \$134 million.

The decreases in military construction represent facilities which fall out as a result of changes in force structure. The increases in fiscal year 1961 relate to modifications to improve the effectiveness of these defensive weapon systems.

Surveillance program

[Millions]

	Fiscal year 1960	Fiscal year 1961
Current program.....	\$95.6	\$130.3
Revised program.....	96.9	145.7
Adjustments.....	+1.3	+15.4

In the surveillance program we propose to increase the fiscal year 1960 program by \$1.3 million and the fiscal year 1961 program by \$15.4 million. All of the adjustments involved are in the "Other procurement" appropriation. The fiscal year 1960 increase derives from price adjustments while the increase in fiscal year 1961 provides for restoration of radar items which had slipped from the fiscal year 1960 program due to production difficulties.

BMEWS program

[Millions]

	Fiscal year 1960	Fiscal year 1961
Current program.....	\$257.1	\$107.3
Revised program.....	272.0	134.9
Adjustments.....	+14.9	+27.6

In the ballistic missile early warning system we propose to make \$14.9 million more available in the current year and request an additional \$27.6 million in the budget year, fiscal year 1961. These additional funds will be used to advance the initial operational capability dates of the second and third sites. They will buy us vitally needed time in this field, about ——— months in the case of site No. 2, and an estimated ——— months for site No. 3. Both "Military construction" and "Other procurement" funds are involved.

GAR-9/ASG-18 program

[Millions]

	Fiscal year 1960	Fiscal year 1961
Current program.....	\$9.1	
Revised program.....	9.1	\$15
Adjustments.....		+15

Provision is made for continuation in fiscal year 1961, in the amount of \$15 million, of the GAR-9/ASG-18 program, which had been scheduled for termination after fiscal year 1960.

Space program

[Millions]

	Fiscal year 1960	Fiscal year 1961
Current program.....	\$298.9	\$333.0
Revised program.....	324.5	368.8
Adjustments.....	+25.6	+35.8

In the space program, which embraces the DISCOVERER, MIDAS, and SAMOS programs, we plan on increasing the fiscal year 1960 program by \$25.6 million and the budget year program by \$35.8 million, all in the R.D.T. & E. appropriation. The increased funding includes provision for additional research and development firings of the DISCOVERER series of satellites. These provide the engineering and test bases required for the MIDAS and SAMOS programs which will exploit the early warning and reconnaissance satellite capabilities which are so vital in the ballistic missile era. The bulk of the fiscal year 1960 increase is related to the high priority MIDAS program.

ATLAS program

[Millions]

	Fiscal year 1960	Fiscal year 1961
Current program.....	\$987.2	\$1,001.6
Revised program.....	1,077.2	1,137.6
Adjustments.....	+90.0	+136.0

The adjustments proposed in the ATLAS program have the effect of increasing the current fiscal year 1960 program by \$90 million, all in "Military construction," and increasing the fiscal year 1961 program by \$136 million, all in "Missile procurement." These additional funds are required to increase the number of missiles per squadron at a significantly lower cost.

MINUTEMAN program

[Millions]

	Fiscal year 1960	Fiscal year 1961
Current program	\$343.2	\$449.1
Revised program	343.2	476.1
Adjustments		+27.0

An increase of \$27 million in the fiscal year 1961 MINUTEMAN program is proposed for some production facilities expansion and for additional effort in the research and development tasks associated with the mobile MINUTEMAN development program.

These funds will allow additional reliability testing and additional component engineering effort, as well as enlarging approaches on ground support equipment and launch equipment for the mobile concept. In addition, these funds will provide for further definitive testing of missile trains and associated equipment in relation to operation and targeting of this system.

FINANCING

To recap, the net effect of these several adjustments is to reduce the obligational authority requirements for fiscal year 1960 by \$15 million and for fiscal year 1961 by \$123.7 million, or a total reduction of \$138.7 million for the 2 years.

These are the net results of numerous adjustments between and among appropriation accounts and as between the 2 fiscal years. Without going into details at this time—although they can be made available to the committee, if desired—I can state that the necessary adjustments are possible through combinations of (1) adjusting the carry forward of old procurement funds as authorized by the terms of the fiscal year 1960 procurement accounts language; (2) by reprogramming within appropriations; (3) through transfers authorized by the OSD emergency fund language, as broadened by section 633—this will be the first time we used section 633, we had not had to use that special authority before; (4) and by deferring some items from fiscal year 1960 to fiscal year 1961.

The adjustments which have been presented have little or no effect on overall Air Force net expenditures for the 2 fiscal years involved.

The net result of all of these adjustments can be expressed as decreases of \$95.7 million in "Aircraft procurement" and \$43 million in "Other procurement." These amounts could be deducted from the fiscal year 1961 appropriation requests and still leave us the capability to make the program adjustments which have been discussed.

ACCELERATION OF IMPORTANT PROGRAMS

Mr. MAHON. Gentlemen, earlier in the year when most of you appeared before us and we discussed various programs, the committee, I think, made known its desire to accelerate the intercontinental ballistic missile program as much as reasonably possible during the so-called critical time period of 1960-63. It seems to me that you have submitted a program which will accelerate the ATLAS program to a limited extent during this critical period.

We have all been tremendously interested in the MIDAS, SAMOS, and other satellite programs. The acceleration you propose in those fields seems to be a step in the right direction.

Last year we provided you with an appropriation of \$87 million, I believe, above the budget in an effort to accelerate what appears to be in many ways a better weapon than the ATLAS or the TITAN; namely, the MINUTEMAN. As I understand it, in your revised program you propose some additional acceleration of the MINUTEMAN.

How much is the money involved?

General FRIEDMAN. In the amount of \$27 million, Mr. Chairman.

Mr. MAHON. That all seems to be good.

COMMITTEE CONCERN OVER AIR DEFENSE

There has been considerable concern on the part of the committee in regard to air defense. Some of the members have had one view, others have had a different view. There has been some confusion and a great deal of interest, and on the part of some members of the committee much disappointment and unhappiness over certain features of the air defense program.

I think it would be fair, if there is no objection, to place in the record at this point some paragraphs from our committee report of last year in regard to air defense. Then we do not need to belabor that question further.

(The material referred to follows:)

AIR DEFENSE

[P. 14, H. Rept. No. 408, Department of Defense appropriations bill, 1960]

A primary objective of the defense program is to deter war. All facets of our defense program, the capabilities of each service down to the last man, play a role in this great effort. Inasmuch as a complete defense against a potential foe is practically unattainable, and that is especially true today, there is common agreement that an overwhelming offensive capability is the best defense. Our military program has been patterned in that direction for years. This is not to say that no effort has been made or should be made to attain a good defensive posture. Indeed, our offensive power must never be left open to destruction from surprise attack. Protection against such an eventuality is the primary role of our air defense forces.

In an effort to protect our offensive retaliatory forces, as well as the population centers of the Nation, we have spent over the past 10 years in the area of \$29 billion. This includes radar warning networks, fighter aircraft and anti-aircraft missiles—the entire air defense package. Proposals have been made and are under study within the Defense Department which could increase this total spending to about \$49 billion by 1963. A detailed listing of what the system entails would be of little value for our purposes here. Generally, however, the system now in being can be described as encompassing (a) early warning radar networks and radar coverage of most of the United States tied into the elec-

tronic computer control centers of the semiautomatic ground environment system known as SAGE, (b) hundreds of supersonic fighter aircraft stationed throughout the Nation, and (c) NIKE antiaircraft batteries surrounding most major target areas. The so-called BOMARC antiaircraft missile defense system, and ability to combat the ICBM or even to detect its approach, is yet to come.

By the end of fiscal year 1959, we will have expended or committed for expenditure nearly \$3,700 million for NIKE-AJAX and NIKE-HERCULES air defense missile systems. By the end of fiscal year 1959, we will have expended or committed for expenditure approximately \$1,900 million on the BOMARC air defense missile system. The above figures for both missiles are all inclusive, including direct assignable costs for military personnel and operating expense. The NIKE is an Army program; the BOMARC is an Air Force program. In addition, the 1960 budget contains estimates amounting to nearly \$1 billion for these two missile systems. This, of course, is only a part of the total overall air defense budget, and if all programs are approved the cost curve is projected to rise sharply. Coupled with the air defense program is the increasingly important anti-ICBM program, including an ICBM early warning system. This will add additional billions to the expense involved.

The question naturally arises—wherein lies the greater threat, and what is to be done about it? Systems are under construction to provide for early warning of intercontinental ballistic missile attack. Actual defense presents a much more difficult problem. This problem is being attacked and the committee is providing additional funds for advance procurement in order to speed along the NIKE-ZEUS anti-ICBM missile program. Development takes time and there is little more that can be done for the present. We have a number of competing systems, however, for defense against aircraft. Great progress has been made in aircraft warning systems, in fighter interceptor aircraft armed with air-to-air missiles, and in the development of ground-to-air missiles, such as the BOMARC and the NIKE-HERCULES. The problem in this area may well be that we have too many possibilities, or too many services involved. Competing systems supported by enthusiastic industrial and service advocates tend to create confusion and uncertainty. Great promises, often somewhat nebulous but calculated to get support and contract awards, are held out by the advocates of all systems.

The availability of more than one promising possibility frequently makes it necessary to pick and choose, often an extremely technical and difficult process. In the air defense area, we have a very definite problem of this type in the competing concepts behind the BOMARC and the NIKE-HERCULES ground-to-air missiles.

The BOMARC air defense missile system has been under development for many years. The first missile was test fired in 1952 and still none are in operational units. This missile is designed to intercept attacking aircraft at much greater distances from the target area than the NIKE-HERCULES missile. The greater range capability which is sought for the BOMARC has added complexity and additional cost to the missile. However, because of the greater range planned for the BOMARC over the HERCULES missile, and therefore the fewer number of missiles required to defend a given target area, it is not definitely known which system would be the more expensive in the long run. The committee, in the light of all the uncertainties, is unable to make such a cost determination at this time.

The official position of the Department of Defense is that we need both the NIKE-HERCULES and the BOMARC missiles. This conclusion may be correct but the entire issue is clouded by the claims and counter claims of representatives of the individual services. Billions of taxpayers' dollars are involved in this controversy. It is believed that a final decision in this area can only be made after a careful military analysis. Admittedly the issues involved are extremely complex and difficult to resolve. An immediate reexamination of the whole problem at the highest level is urgently required. The committee requests that such action be taken.

The committee in a further effort to focus attention upon the necessity for an early decision on the air defense missile controversy has made a sharp reduction in funds requested for the BOMARC missile system. The budget request for the BOMARC missile for production, development, test and evaluation totaled \$447,300,000. Of this amount, \$84,600,000 is for test and evaluation. The committee has reduced funds for production by \$162,700,000. This is not claimed as a long-range saving. The committee would be willing to appropriate the full budget estimate and more if it had full confidence in the proposed BOMARC missile—if it had the assurance that the system would actually work.

The contractor for this missile has already received over a period of years commitments in excess of \$1,100 million. Before further commitments and expenditures pile up, a new hard look should be given to the proposed BOMARC and the whole air defense problem.

The so-called Furnas Committee, at the request of the Department of Defense, has recently completed a study of the BOMARC. The committee gave the BOMARC approval with certain important reservations. By the terms of its directive from the Department of Defense, the Furnas committee did not give full consideration to NIKE-HERCULES, fighter aircraft, and other important air defense factors in making the study. The study as a result is inadequate and not conclusive with respect to the overall air defense picture.

It should be observed that neither the NIKE-HERCULES nor the proposed BOMARC are capable of combatting the ICBM or even missiles of the HOUND DOG type launched at targets from distant aircraft. We are spending vast sums on air defense. It is time to reexamine what we are getting for our money.

Mr. MAHON. You have made some rather significant recommendations in this field of air defense. We have not had an opportunity to examine them in detail. Of course, we are not in a position to commit ourselves with reference to what our views and recommendations will be when we submit the Department of Defense appropriation bill to the House of Representatives for consideration within a few weeks.

In other words, I have no authority as chairman of the subcommittee to say that either your original program as submitted in January or your revised program completely meets with the approval of the committee.

I want to commend you for having a further look at this whole picture. I had assumed that the Army, Navy, and Air Force kept all military programs under constant review. I have felt, however, through the years, that the services have not been sufficiently flexible and responsive to changing conditions.

PRESENTATION OF PROGRAM NOW RATHER THAN IN JANUARY

The most obvious question here, General White and Mr. Garlock, is this: If this is such a wonderful idea which you present today, why did you not come to the Capitol in January and present us with this money-saving, defense-improving, eye-catching, more attractive program? Will you please comment on that?

General WHITE. I will to the extent of my ability, Mr. Chairman. I think it is a very cogent question.

I think the No. 1 point to make is that the technology and the enemy threat are constantly changing. I think it is fair to state it takes time, maybe too much time, for some of the implications to seep into all the brains that have to work on these things. It is also very cogent, in my opinion, that somewhat of a revolution took place in the air defense field under the Department of Defense master air defense plan just 6 or 8 months ago. That took some time to digest.

Mr. MAHON. You are referring now to the so-called master plan which was approved last summer and which to some extent grew out of hearings and discussions pertaining to the Department of Defense appropriation bill last year?

General WHITE. That is correct, sir.

Mr. MAHON. All right, proceed.

General WHITE. Another factor which I think has a very big bearing on it is that actually the responsible commanders—and you get

into quite an involved situation when you come into this—the actual responsible commanders of the air defense of the United States report to the Joint Chiefs of Staff, not to the Chief of Staff of the Air Force. This is true of all unified commands.

Somebody has to step up to these problems, and it devolves in a military sense upon the Chief of Staff of the service to take the initiative, and sometimes perhaps—I will later state the position of CINCNORAD on this—to step up and in many ways overrule him in the light of the overall picture—the integrated threat; the moneys available; the weapons systems which are present and forthcoming; and in the light of other threats. That, in effect, is one reason that this may seem to have been somewhat late.

I would point out, however, without any attempt to be defensive in the matter, that we have stated on numerous occasions that these things are under review, and it does take time to evaluate and work out the plans and equate them to dollars and deployment.

In addition to those items, we have the Joint Chiefs of Staff machinery through which we must work.

All of these things have been worked on. All of them have taken time. We have stepped up to this problem from the point of view of the Air Staff and, of course, my own, to cut through some of the inhibitions, some, in my opinion—for want of a better word—“clinging” to concepts. While I recognize the threat of the air-breathing bomber exists as of today as the most important, most deadly threat against this Nation, it is quite obvious that the intercontinental ballistic missile is to become the predominant threat to this Nation. I do not downgrade the manned bomber threat, but of the two systems, the ICBM will, in my opinion, become the dominant one.

We are trying here, within the President's budget, to shift our emphasis to give us a good air defense earlier than we would have had it and to put some of the moneys on systems which will better meet the future as we see it. In line with that, we are going to strengthen our offensive capability. As you know, it is my opinion—and has long been Air Force strategy—that offense is the best defense.

All of those things together, plus the space systems which are for the future, as well as having a very direct bearing on the ICBM warning threat, are the integrations.

I think with that statement I should tell you where each of the various echelons stands on our proposals, because there is more to it than just my initial statement.

I should of course first state that the Secretary of the Air Force approves both our recommended cutbacks and our recommended addenda.

I should next state that the Commander in Chief NORAD does not agree completely with our recommendations. I can cite you some of his particular programs that he would like to see continued in greater numbers and at greater cost than we have in this program.

OPINION OF GENERAL KUTER ON NEW AIR DEFENSE PROGRAM

Mr. MAHON. The Commander in Chief of the North American Air Defense Command does not fully agree with this package which you have presented here?

General WHITE. He does not, no, sir.

The Joint Chiefs of Staff have agreed to the cancellation of the super combat centers and the cutbacks in the BOMARC. The Department of Defense has approved the cutbacks and has stated its approval of my presenting to you our recommendations for the addenda, but is not prepared at this time to state its complete concurrence with those items which are add-ons or which are substitutions.

Mr. MAHON. Do you foresee that we will be notified of DOD approval?

Mr. GARLOCK. I assume as soon as Mr. Gates gets back from Europe, it will be taken up with him and you will be advised very promptly of his position on this matter. It is his absence from the country which prevents our presenting the Department of Defense position at this time.

Mr. FORD. Does SAC approve of the add-ons?

General WHITE. Yes, sir.

Mr. FORD. I wanted the picture complete as to who has disapproved and who has approved in the several commands.

Mr. MAHON. I would prefer not to yield too much, because I want everyone to have an opportunity to interrogate.

Mr. FLOOD. I want to ask just this. This is not personal because you have not been a part of this. Have you been permitted also by the administration Olympians to say to us that it is no longer lese majesty for a Member of Congress to question the Defense Department budget, and that it is no longer considered that we are aiding and abetting the enemy if we publicly declare our doubts? I am just wondering if you have been commissioned to permit us to go that far. You have not been particeps criminis to this operation, but 60 days ago it was made very clear that it was presumptuous and impertinent for us to do what you all have been doing. That is rhetorical. I will answer that myself.

General WHITE. It has been my impression that the Congress not only does, but is entitled to say what it thinks. I might say it usually does. I think a fair expression is that some of the things which have been said by this committee and elsewhere have unquestionably had an influence on at least my steeling myself to come up to make this kind of change.

Mr. FLOOD. We have been flying in the faces of the gods, you know. We were concerned about whether the wax on our wings would crash us to the ground.

Mr. MAHON. Just how unhappy are the people in the North American Air Defense Command with the proposed reduction in air defense programs? They would be the best witnesses on this but we shall probably not have an opportunity to hear them. You have talked with them about this matter. What are their views?

General WHITE. Sir, I would have to start with this type of answer as a preliminary: I have never encountered a major commander yet who wanted to give anything up. I think that is basic to all of them. No commander ever wants to give anything up as long as he can justify utility for it. I think General Kuter is one of the most competent officers we have. He has done a superb job as Commander in Chief of the North American Air Defense Command. Now—in more direct response—I will give you some of the items which he feels he needs to

have an ideal defense. He has studied these in increments of annual cost of \$5.5 billion down to \$4 billion annual cost.

In general, he has maintained the BOMARC program at its full strength. In fact, he has added. At \$5.5 billion he has asked that there be ——— BOMARC missiles in the program.

Mr. MAHON. In other words, he does not want to reduce the BOMARC program as you have recommended.

General WHITE. That is correct, sir. Also, he does not want to cancel the supercombat centers.

Mr. MAHON. All right.

General WHITE. He wants to build up the NIKK-ZEUS to the maximum capacity possible. He wants to maintain——

Mr. MAHON. I do not know what you mean by that. You mean he wants to go into the operational production?

General WHITE. That is correct, sir. He carries that right on down to his lowest level of \$4 billion.

He wants to maintain the fighter-interceptors at the full current strength without the transfers to the National Guard.

He wants to reinstate the F-108.

How he does all of that with those figures we have not figured out, because almost from cursory inspection I do not think it can be done. Nevertheless, those are his major items. I do not think of any others that come from the top of my head right away.

I should point out that in our program we would stipulate the two major things, the cancellation of the supercombat centers, the cutback of the BOMARC, and then the details of all the rest of the program, of which there are many additions, such as the very significant improvement to the fighter-interceptors. I am sure he welcomes that. The new radars he welcomes.

The point I am trying to make here is that the detailed disposition of what remains in the program would be almost entirely up to him.

Mr. MAHON. I assume that General Kuter opposed the cancellation of the F-108.

General WHITE. Yes, sir, and would like to reinstate it.

FORMULATION OF PROGRAM REVISIONS

Mr. MAHON. Since he is the field commander and should know most about this, how have you brought yourself to the decision that he should be overruled in these tremendously important and expensive programs?

General WHITE. It is a very difficult thing. As the Chief of Staff of the service which has cognizance of the budget, I have to consider the requirements of SAC, of the Tactical Air Command, of MATS, and the general support of the Air Force. When we are given certain guidelines for the budget, things must fall out. As I stated, I believe, before this committee, to address myself directly to the F-108, I feel that a long-range interceptor is of very great importance, but I was told that we could only develop one manned aircraft, and as between the F-108 and the B-70, after great self-introspection I came up with the belief that the B-70 was the more important.

Mr. MAHON. We will not get into that field, although it is pertinent.

Who proposed the changes you have presented? Have you done some studying and some restudying of the plans and programs? Have

General Estes and others made any special surveys? Why have you reached these conclusions at this point?

General WHITE. Some time ago, Mr. Chairman, I think I originated the idea that we could have a better overall security position by making certain changes in the defense program. I gave the job to General Estes who, with I think approximately 100 other officers, worked day and night for many weeks in producing a number of solutions to this problem. We studied them very carefully. Also——

(Off the record.)

POSITION OF SECRETARY OF DEFENSE AND JOINT CHIEFS OF STAFF

Mr. MAHON. This is not just the proposal of General White and his staff, but it represents the idea of others. To what extent does it represent the views of the Secretary of Defense or of the Defense Department as such, and to what extent does it represent the views of the Joint Chiefs of Staff?

General WHITE. I will take the last one first, if I may. The Joint Chiefs of Staff have approved the two major elements; the cancellation of the super combat centers and the cutback in the BOMARC. The complete briefing was not given to the Joint Chiefs of Staff because they felt they were familiar enough with the problem to take action without a detailed briefing, because they keep abreast of these things.

Mr. MAHON. Are they solidly behind you——

General WHITE. Yes.

Mr. MAHON (continuing). In this proposed addition and change in configuration of the Air Force budget and program?

General WHITE. The additions have not been referred to the Joint Chiefs of Staff because that is a service consideration.

(Off the record.)

Mr. MAHON. You are recommending actions here which have to do with the destiny and the survival of the Nation. We have a lot at stake. We had a briefing yesterday in which we were discussing estimates of what an all-out atomic exchange would cost in human lives, so we are not playing with some trivial matter here, as you and I and all present well know. I want to be sure that this proposal has been very, very well considered and that it represents the best judgment which you have been able to bring to bear in the executive branch of the Government.

General WHITE. I have stated the Joint Chiefs of Staff and the Department of Defense have approved the cutbacks and the cancellations stipulated, and at least the Deputy Secretary of Defense and Dr. York and others have gone through the same process that I did when I arrived at my decision to make this recommendation to the Department of Defense.

Mr. MAHON. They are on your team in this matter?

General WHITE. I feel sure they are, sir.

FORMULATING OF AIR DEFENSE RECOMMENDATIONS

Mr. MAHON. General Estes, you and a considerable number of Air Force officers have worked on this problem of air defense. Have you worked on it actively in recent weeks? Tell us of your deliberations.

General ESTES. All right, sir, I shall.

As General White outlined earlier, during the latter part of last year, in attempting to respond to the Department of Defense master plan which you mentioned for the record, the major members of the same group who have prepared the material to which General White has been referring were deeply involved in a determination of how best to meet the master air defense plan submitted by the OSD. Obviously, many portions of this were not completed by them. They were referred to us for detailed completion.

Essentially, the members of that group worked on the effort at that time, and then worked with members of the Air Research and Development Command, the Air Materiel Command, our special technical advisory organization at Hanscom Air Force Base in Massachusetts, known as ADSID/MITRE, and we drew upon technical information from members of the Air Defense Command. We did not ask them specifically for their detailed ideas for the very simple reason we knew already their ideas would not coincide with ours with reference to reductions, but we drew upon their technical knowledge of air defense as necessary in our studies.

As General White has said, approximately 100 various technicians from all these organizations were assembled early in February. We went through in minute detail the exact technical status of every single component of the air defense system. Our purpose was to determine whether or not we could in fact meet the schedule, both moneywise and timewise, which we had set for ourselves with reference to each of these components.

Our purpose subsequently, after that detailed examination, was to examine every possible alternative to produce an air defense system against the threat to which General White has referred, at the earliest possible time period with the minimum possible dollars.

As General White has said, we came up with on the order of six different alternatives as to how this could be done.

Mr. MAHON. When did you come up with these?

General ESTES. I believe, sir, if memory serves me correctly, this was around the 12th or 15th of February. It was approximately that period, sir. Mid-February, let me say, without specifying the exact date.

Mr. MAHON. What has happened since that time?

General ESTES. Subsequent to detailed discussion of this entire material with General White and his deputies, we briefed General Kuter, commander of the North American Air Defense Command, General Atkinson, the commander of the U.S. Air Defense Command, and members of their staffs. Of course we briefed our own Secretary and the Under Secretary and their staffs.

Mr. MAHON. If necessary, elaborate that for the record, but I want to ask one further question.

Just how well did you tie in all of these studies and briefings and deliberations with General Kuter, commander of the North American Air Defense Command? Has he really been in this act and has he had a chance to present his views adequately to the officials here in Washington?

General WHITE. May I answer that, please.

General Kuter gave me his comments in writing. He was queried by the Joint Chiefs of Staff on these two major items and sent in his reply.

Mr. MAHON. Have you anything further on that, General Estes?

General ESTES. Only to say, sir, we have briefed members of the OSD staff. As you know, Dr. York's staff has been conducting similar studies on air defense, and they are very familiar with the material on which we have been working.

(Off the record.)

Mr. MAHON. Thank you very much, gentlemen. We will see you at 2 o'clock.

AFTERNOON SESSION

We shall resume our hearing. The actions which are recommended here today by the Air Force have implications which affect the overall defense posture of the United States. It seems to me that actions of this type should not be recommended without consideration having been given them by all the services through the Joint Chiefs of Staff.

Did the Joint Chiefs study the overall implications of these proposals and did the Joint Chiefs approve these proposals? I am speaking specifically of the reductions in the program.

General WHITE. The Joint Chiefs of Staff looked at these specific proposals as to cutbacks, but within the context of purely Air Force programs. There was not a triservice look across the board. There was no comparison of whether it was better to cut out something in the Army or Navy or Marines and leave the full BOMARC program or supercombat centers in.

Mr. MAHON. Was there any consideration given with respect to the impact of this proposal on the NIKE-HERCULES program?

General WHITE. To this degree only: That presumably General Kuter will ask for any compensating weapon systems in other service budgets. He has asked to maintain the NIKE-HERCULES, as I understand it, under his proposals about where they are, but with this change he may well ask for more NIKE-HERCULES.

Mr. MAHON. That could be true?

General WHITE. That could be true.

Mr. MAHON. The Joint Chiefs should not sit idly by and see a big hole pulled in our defense structure.

General WHITE. I am sure they have no intention of doing that, sir.

Mr. MAHON. If this proposal had that effect, would it have come here under these circumstances?

General WHITE. It would not.

Mr. MAHON. The President submitted to us in January a Defense Department budget. The total dollars have not been changed drastically, though there is a reduction in this proposal. Nevertheless, the program has been changed quite markedly.

It seems to me that we would have, before this is over, an approval by the Budget Bureau and by the President in an amendment to the budget.

General WHITE. I am sure that it is forthcoming, sir. That is the point where I stated OSD was not prepared to give approval to the substance of the addenda.

Mr. MAHON. Do you assume, then, that the Secretary of Defense will probably work out these arrangements upon his return from Europe?

General WHITE. I know it is being actively worked on as of the present.

BOMARC

Mr. MAHON. All right. I have before me the final sheet of your statement, General White. You give the reductions and then you give the add-on. Do you suppose that it would be better to subtract more money from the BOMARC program? We have downgraded it as one of our weapon systems in this proposal you make. Is the remaining BOMARC program a face-saving thing? Should we step completely out of this picture?

General WHITE. Not in any respect, Mr. Chairman. That is certainly a very proper and, I may say, searching question. We would not recommend that any BOMARC's be in this program if we did not have the utmost confidence that the system is going to work. To take the BOMARC's out would really leave a serious gap in our defensive system.

As I stated earlier, CINCNORAD does not even approve of this cutback. Some of the money in the BOMARC program is applied to fighter-interceptors. If nothing were done, we would really have a defective air defense system, in my opinion. The money that could be saved by complete cancellation of the BOMARC program would not buy interceptors or other types of defense, in anywhere near the quantities needed, that would be as effective.

SAGE

Mr. MAHON. The word "SAGE" a few years ago was more or less a magic word. That is semiautomatic ground environment. It was a great word and we had great plans for it. It has not, apparently, progressed as had been planned, so now you propose this \$132 million reduction.

Is it wise to downgrade the SAGE system, to make it soft, and so forth?

General WHITE. The SAGE system, of course, continues in existence, but we do not build these supercombat centers which, if I am not mistaken, were a subsequent development in which it was proposed that certain of these advanced type SAGE computers be placed in hardened positions, hardened to — pounds per square inch.

(Statement off the record.)

General WHITE. You can carry this on ad infinitum and practically put the entire national wealth in this thing because if you harden your centers, to, say, a thousand pounds per square inch, then your fighter fields, your subsidiary communications, your BOMARC's, whatever you have, also would have to be hardened because they equally could be destroyed. This way we do not, I think, now expend this money for something which we foresee will not really pay off. We do continue the SAGE. Remember, however, it will be susceptible to breakdown into regional controls. So, if one part goes out, at least you have the other part to continue to operate.

I am getting into some technical aspects, but I think General Estes could elaborate in more definitive terms than I have.

Mr. MAHON. General Estes, do you feel that the SAGE system, as contemplated in this presentation today, will be a highly significant and important part of our defense mechanism?

General ESTES. I do, indeed, sir, or I would not recommend it.

Mr. MAHON. Do you think we are going to get considerable value for our money with the SAGE system as now envisioned?

General ESTES. I do, sir.

Mr. MAHON. General Friedman, at this point in the record I wish you would place approximately the amount of money which has been provided to date and that which is included in this new proposal for the entire SAGE system and give us a paragraph as to just what the SAGE system does.

General FRIEDMAN. We will do that, sir.

(The information to be supplied follows:)

SAGE

	Construction and equipment program requirements (in millions)				
	Fiscal year 1959 and prior years	Fiscal year 1960	Fiscal year 1961	Balance to completion	Total
Program per President's fiscal year 1961 budget.....	\$1,165.9	\$280.2	\$235.2	\$291.6	\$1,972.9
Proposed amended program.....	1,165.9	138.4	102.8	166.9	1,574.0
Difference.....	0	-141.8	-132.4	-124.7	-398.9

The proposed amended SAGE system will provide a semiautomatic ground environment for the detection, identification, control, communications, and interception of air-breathing weapons in designated areas of the United States and Canada.

Mr. ANDREWS. Mr. Chairman, may I ask a question?

Mr. MAHON. Yes.

QUESTION AS TO SAVINGS FROM CANCELLING BOMARC PROGRAM.

Mr. ANDREWS. General Estes, you stated that you needed or would get — BOMARCS. I believe General White stated we had — and you want — new ones and that will wind up the BOMARC program.

General ESTES. Yes, sir.

Mr. ANDREWS. Could you tell me how much — will cost, or how much could be saved if the whole program were stricken now?

General FRIEDMAN. If you were to cancel the entire program, this would net a savings on the order of \$250 million. We have made a reduction, as we indicate, of \$381 million. There was \$421.5 million already in the budget. This leaves about \$40 million to carry on, clean up the GSE and otherwise settle out the program.

Mr. ANDREWS. The saving would be —

General FRIEDMAN. About \$250 million.

Mr. ANDREWS. Thank you.

Mr. SIKES. May I ask a question at that point?

Mr. MAHON. Yes.

Mr. SIKES. Could you recapture all of the \$250 million?

General FRIEDMAN. Yes, sir; that is net—sustaining the cancellation costs.

Mr. SIKES. What could you use for a weapon as a substitute for the BOMARC in the areas where you have programed BOMARC as an air defense weapon?

General FRIEDMAN. I would prefer to have General Estes answer that, sir.

General ESTES. Mr. Sikes, I did not want to use my own judgment on this particular point and, therefore, I sent a message to our Air Defense Command and explained to them the extent of the cutback which we have just been discussing here and pointed out to them the approximate amount of savings which would be realized if we went for a zero BOMARC-B program, as expressed by General Friedman a moment ago.

I asked the Air Defense Command to examine this and to determine what alternate weapon could be put in and whether or not that alternate weapon for the amount of money would be the equivalent military capability.

I further asked them if they would check their answer with the headquarters of NORAD, with the Commander of North American Air Defense Command, and then send me a reply.

Their reply stated essentially that they did not under any circumstances consider that they could purchase for the amount of money General Friedman has just mentioned enough fighter-interceptors—that is the only weapon you could put in in place of these BOMARC squadrons to be the military equivalent of the squadrons of BOMARC's which we have mentioned earlier, ———, 28 UE, equivalents. They stated in essence in their opinion on the basis of the assumptions they had made with reference to the competence required in the area, that they believed they would have to purchase fighters on a 1-for-1 basis to equal the same military equivalent. This would be a dollar cost far in excess of the savings we have discussed.

Mr. SIKES. Could you make an estimate of the dollar cost?

General FRIEDMAN. I think a good rule-of-thumb, assuming you are going to buy the F-106, which is probably the one you would buy if you were talking about the same time period, it would cost you—including development, attrition, and everything else—on the order of about \$4.4 million for the fighter, the 106, and \$3.2 million—including your test and research missiles—for the BOMARC.

In other words, it would be about \$4 million per article to replace it on a 1-for-1 basis. So it would cost you about \$1 billion total to go the fighter route. These costs are on a historical basis. To be more realistic we should consider that development costs are behind us. I will provide for the record here what these costs would be on the basis of simply procuring additional aircraft.

(The matter referred to follows:)

The costs for substituting ——— F-106s for the same number of BOMARC B would total approximately \$900 million compared to the \$460 million for this number of BOMARC B's. Neither of these amounts include development costs.

Mr. SIKES. What is the comparative time of availability of the two systems? Which would be available earlier?

General ESTES. I do not think there would be a great deal of difference, sir. The 101 line is still open. The 106 line ends in ———. I do not know about the leadtime.

Assuming that the 101 and 106 lines are both open, there would be a gap but some of it could be made up by extra funds, I would feel you have about an 18-month leadtime to get started. I can provide for the record here costing data for some alternative that would price out somewhere near the added \$250 million saving which General Friedman mentioned.

(The matter referred to follows:)

Alternative 1: Three additional squadrons of F-101B aircraft can be provided for approximately \$242 million with aircraft deliveries starting in January 1962.

Alternative 2: Three additional squadrons of F-106 aircraft can be provided at a cost of \$300 million with aircraft deliveries starting in January 1962.

Mr. FORD. Will the gentleman yield?

Mr. MAHON. Mr. Ford.

Mr. FORD. If you cancel BOMARC-B now, the statement has been made you would recover \$250 million.

General FRIEDMAN. That is right, sir. This is in addition to the \$381 million that our proposal contemplates.

Mr. FORD. How much would you have spent on BOMARC-B that would have no return whatsoever?

General FRIEDMAN. I can get that in just a moment.

Mr. FORD. Give use a round figure. I am certain it is substantial.

General FRIEDMAN. Yes, it is substantial. On the BOMARC-B, procurement of which started in fiscal year 1958—and we are involved through fiscal year 1960, since we have essentially cut off procurement from the 1961 budget—it would have been about \$800 million in program value. I would say some \$700 to \$750 million of that is probably expended as of now.

Mr. WHITTEN. General White, during World War II, shortly after Pearl Harbor, for some months thereafter, here around the Capitol on top of most of the buildings you could see these mounted guns. I do not know whether it gave any sense of security to Members and others, but finally one of our colleagues went up to see and they were wooden.

It would not hurt anything in case we had been under attack and if they contributed to the Congress' sense of security, perhaps it was all right.

If I have heard the testimony right about BOMARC, at the present time it is in fact an unproven weapon system with high hopes after one or two tests that folks kind of indicate may be all right—to release this information showing that you are going to have BOMARC around these eastern highly populous areas, is that some more of this wooden-guns-on-the-Capitol business as it stands now, as subtracting from that your high hope as to what this weapon system might do in the future?

General WHITE. I do not see any relationship. This is a weapon system that is going to work. The wooden gun never would work, I am sure.

Mr. WHITTEN. As of this time you just have high hopes; is that right?

General WHITE. As of this time we have a great deal of scientific and test background which makes those hopes rational.

Mr. WHITTEN. How many things have you had in the past that you did phase out where your hopes came to naught in your experience at high level?

General WHITE. I can think of some weapon systems which we did not purchase, not necessarily because they did not work out but because something else better came along.

Mr. WHITTEN. I am just going to ask one question but to point out a whole lot of things here. Secretary Sharp was before this committee a few weeks ago asking us to go along with purchasing five planes, I believe, from Lockheed. It is the third time the Air Force has been in here to try to get a committee to go along with a contract with Lockheed for such planes.

One time they needed the planes for executive use, another time they needed them for another use. They got them neither time. He finally let the matter come out on the table when he said somebody in the Air Force indicated to Lockheed and McDonnell that if they had competition on a certain type of plane, the Department likely would need some. So the Air Force felt that since they had had that discussion, apparently orally, there was some obligation to buy at least enough of the planes to justify what Lockheed spent without any contract whatsoever.

On the face of it, it looks to me as though there is possibly an element of that in this BOMARC.

General WHITE. There is absolutely none, sir.

Mr. FLOOD. There is something else, Mr. Chairman.

(Discussion off the record.)

Mr. MAHON. Will Canada continue the use of the BOMARC missile?

General WHITE. Yes, sir; they very much wish to.

Mr. WHITTEN. I would not want to charge that, but I want the record to show that from the press the last couple months this matter has not been completely outside of political discussion in this country, this matter of defense.

General WHITE. I can only say, Mr. Whitten, that we have high confidence in this weapon system and that it is a very important part of our area air defense.

Mr. SIKES. Mr. Chairman; I want to be sure I heard the answer to your question about Canada. Did I understand you to say that Canada does want to use the BOMARC in its defense system and is, in fact, preparing to do so?

General WHITE. That is correct.

Mr. MAHON. In short, it is Canada's plan to continue with some considerable dependence upon the BOMARC system?

General WHITE. That is right.

Mr. MAHON. It is the plan of this Government to continue with some dependence upon the BOMARC system. You are phasing out the system insofar as requesting appropriations is concerned. You have reduced your appropriation request in the fiscal 1961 budget for BOMARC substantially.

General FRIEDMAN. That is correct, sir.

Mr. MAHON. How much money do you now request for BOMARC?

General FRIEDMAN. There will be about \$40 million left. The President's budget contains an amount of \$421.5 million for procurement of BOMARC. We are reducing that by \$381.1 million.

Mr. MAHON. So there is still some financing for BOMARC but relatively little money as compared with your January request; is that right?

General FRIEDMAN. That is correct, sir.

Mr. MAHON. What will there be in 1962 according to present plans for the BOMARC missile?

General FRIEDMAN. Fiscal year 1961 would finalize our procurement, Mr. Chairman—except for follow-on spares.

Mr. MAHON. You might have some construction problems, or would you?

General FRIEDMAN. No, sir.

AIRBORNE ALERT

Mr. MAHON. I want to explore this matter a little further with respect to the additions. As I said this morning, I feel very strongly that we ought to do more about the airborne alert. I realize there is some money in the current budget for fiscal 1961 for preparing for an airborne alert, but it surprises me that in this revision of your program you did not allocate more money to the airborne alert. I think it was a big mistake, and—I am speaking only for myself—I do not understand why you failed to do this.

I say that is especially true in view of the fact that you made some reductions. If we can save money, we want to save it, millions or billions, but we want a well-balanced defense program and are concerned about not being caught off balance during the next 2 or 3 years, which are very significant years.

Another thing I do not understand at all is why, in view of the fact that you freed some money through this adjustment, that you did not undertake to do something about the problem of airlift. General Lemnitzer tells us he is getting together with the Chief of Staff of the Air Force, General White, and that he has some hopes we may work something out. Here is an opportunity to work something out and nobody tries to do anything about it.

I would just like to know why, in making this revision, which is certainly quite major, you did not do something about these things which seem to me to be very high priority. Will you speak to that, General White?

General WHITE. Yes, sir. May I refer to the airborne alert first?

Mr. MAHON. All right.

General WHITE. The decision on the part of the Secretary of Defense was made very recently on that subject, and there was a difference in the Joint Chiefs of Staff on the level of airborne alert. I had my full opportunity to present my side of the case, as has General Power. The Department of Defense ruled against my position on it, and it would have been a futile exercise to bring it up to them and expect approval for additional funds for the airborne alert. That is a decision, insofar as the Department of Defense is concerned, which has been taken.

Moreover, section 612 of last year's appropriation act, as I understand it, intends that if the Department of Defense and the President determine that more funds are required for the airborne alert, the Congress has granted them the authority to go ahead with it.

Mr. MAHON. You have the authority but you would not actually have the money unless you took it from something else or incurred a deficiency.

Mr. GARLOCK. We would assume if we got Presidential approval we would also get approval for a deficiency.

General WHITE. That is the answer on that.

Mr. FLOOD. You mean if Congress is in session.

Mr. GARLOCK. We have the right in general law to run a deficiency.

Mr. MAHON. Whether Congress is in session or not.

Mr. FLOOD. I am speaking to the point of Congress being in session or not. This can come before or after, but to act without our being here is interesting.

AIRLIFT

General WHITE. On the airlift, Mr. Chairman, I subscribe to General Lemnitzer's statement that the Air Force and the Army have reached certain agreements to attempt to get more airlift.

In this particular instance the first problem was to not gut the air defense but to improve our existing air defense and still save some money in order to improve the future aspects of air defense against the ICBM threat. On that basis our first priority in putting addenda here was in the air defense field.

The second was that I believed that the ATLAS add-ons take priority over airlift at this time, particularly in view of the fact that, if you will note, the expenditures are what have limited us to the items that we have put up for addenda. There is actually more NOA available as between the proposed changes and the President's budget than there are expenditures available.

We did go to the Department of Defense with a request for additional programs and authorization—additional changes—to make up the full NOA. That list did include a request for additional airlift.

EXPENDITURE LIMITATION

Mr. MAHON. Let me get this clear: The add-ons which you have presented us today are not all the add-ons you requested of the Department of Defense in connection with this presentation?

General WHITE. That is correct, sir.

Mr. MAHON. What was the stumbling block with these additions and why did you not get the funds and approval, or do you know?

General WHITE. Yes, sir; I know. It is an expenditure problem. We must abide, by Service, as to the expenditures that can be made in any given fiscal year.

Mr. MAHON. Is your expenditure limitation for fiscal year 1961 \$18.6 billion?

General FRIEDMAN. \$18.6 billion; yes, sir.

General WHITE. These addenda bring us up to that figure.

Mr. MAHON. Were you not already up to that point?

General FRIEDMAN. We were. But, on a comparable basis—although we dropped out some \$500 million and we put in \$300 million—the space programs and the missile programs spend out at a higher rate than the types of programs which we deleted. Therefore, on an expenditure basis we net out. The point is that we cannot use the additional \$140 million without exceeding the \$18.6 billion expenditure.

ADDENDA REQUESTED VERSUS ADDENDA APPROVED

Mr. MAHON. I would like for you to place in the record at this point just what you asked for in this addenda as compared to what you have presented here.

General FRIEDMAN. Yes, sir.

(The information follows:)

Addenda requested versus addenda approved
[Millions]

	Requested		Approved	
	1960 new obligational authority	1961 new obligational authority	1960 new obligational authority	1961 new obligational authority
Atlas.....	¹ 90.0	136.0	¹ 90.0	136.0
Space.....	25.6	45.8	25.6	35.8
BMEWS.....	14.9	27.6	14.9	27.6
Rocket development.....	4.0	12.0	0	0
Minuteman.....	0	47.7	0	27.0
GAR-9/ASG-18.....	0	15.0	0	15.0
MATS MOD (on-shelf procurement).....	0	75.0	0	0
Interceptor improvement.....	0	136.2	0	136.2
C-130-B.....	0	32.0	0	0
Cadin.....	1.0	0	² 0	0
Surveillance.....	1.3	15.4	1.3	15.4
Total.....	+136.8	+542.7	+131.8	+393.0

¹ Construction authorization required.

² No amount included, but approval of item was contemplated.

Mr. MAHON. I have this page before me and I would like for you to have it before you, General Friedman. You might handle these figures, if you like.

I am looking at "Interceptor improvement," \$136.2 million.

Is that what you asked for? Was that your request?

General FRIEDMAN. That was our request.

Mr. MAHON. Surveillance, \$15.4 million.

General FRIEDMAN. That is correct.

Mr. MAHON. BMEWS, \$27.6 million.

General FRIEDMAN. That is what we asked for.

Mr. MAHON. GAR-9, and so forth, \$15 million.

General FRIEDMAN. That coincides with our request.

Mr. MAHON. Space, \$35.8 million.

General FRIEDMAN. We requested \$45.8 million.

Mr. MAHON. ATLAS, \$136 million. Is that what you asked for?

General FRIEDMAN. It is, sir.

Mr. MAHON. That will give you how many additional ATLAS?

Mr. GARLOCK. For the record, we still have a problem with Mr. Sheppard's Committee on Military Construction. That is being handled there and we will take that up then.

Mr. MAHON. You can discuss that with Mr. Sheppard in a few minutes.

You got all you asked for and you got approval, tentative approval, for what you asked for in all of these programs.

What about MINUTEMAN?

General FRIEDMAN. For the MINUTEMAN, we asked for an amount of \$20.7 million more in our initial discussions than is shown in the addenda here.

Mr. MAHON. Why was it reduced?

General FRIEDMAN. It was reduced on the basis which General White discussed, that this appeared to be the maximum funds we could apply and still remain within the expenditures reflected in the President's Budget.

General WHITE. May I put it this way: The list that you have read adds up to the amount of expenditures which we have deleted by our proposed changes.

Mr. MAHON. I see the point.

General WHITE. We have the Department of Defense authorization to state that we have made these recommendations to them. The other recommendations which you are now pursuing do not have that same degree of Department of Defense approval.

Under questioning I am certain that we can state what the additions were; however, there is that distinction.

Mr. MAHON. That is exactly what I am trying to get from you now, a statement of what you sought, if you sought anything, in addition to the addenda which we have just counted here.

You explained the MINUTEMAN.

General WHITE. The lower MINUTEMAN figure is within the addenda.

Mr. MAHON. Within the spending ceiling?

General WHITE. Yes.

I think General Friedman is more facile with figures than I am.

General FRIEDMAN. To go down the list, sir, we asked for \$75 million for modernization of MATS.

Mr. MAHON. You did ask?

General FRIEDMAN. We did ask.

Mr. MAHON. What would you do with that money?

General FRIEDMAN. It is not included in the list.

Mr. MAHON. I know, but you asked for it and you must have asked for it for a purpose.

General FRIEDMAN. What did we want to do with it?

Mr. MAHON. Yes, sir.

General FRIEDMAN. I thought you asked what did I do with it.

Mr. MAHON. What would you do with it?

General FRIEDMAN. General Holloway will respond.

General HOLLOWAY. We asked for that as a part of our overall requirement of \$128 million to buy two squadrons' worth of off-the-shelf-type aircraft that would be modified to the minimum extent necessary to do the MATS job. The type of aircraft under consideration, we do not have a final selective position on it. It would probably be either the cargo version of the KC-135, the CL-44 Canadian aircraft, or the DC-8, sir.

Mr. MAHON. This would be the area you would spend \$75 million on?

General HOLLOWAY. That is correct.

On the estimates we have, it appears that we could get the first of these aircraft, and there would be a total of 37 of them including attrition, to be exact, in 1962.

Mr. MAHON. In fiscal year 1962 you will be able to get these aircraft?

General HOLLOWAY. Starting to get them.

Mr. MAHON. If you will not be spending the money in fiscal year 1961, why would the expenditure limitation deter you here?

General HOLLOWAY. No, sir; I am sorry.

This is when they would be realized in the inventory and it would require expenditure of 1961 money.

General FRIEDMAN. You would really have to—

Mr. GARLOCK. As soon as the contractor has his first payroll, we have to start reimbursing him.

Mr. MAHON. What else was included in this package when it was presented to the Department of Defense?

General FRIEDMAN. We requested an amount of \$40 million for DISCOVERER. The addendum which we are presenting today, with DOD approval, contains \$30 million.

We had requested an increase for the C-130B aircraft—which is the troop carrier aircraft assigned to TAC—to raise the production rate from two to three per month. This required an additional \$32 million.

Mr. MAHON. Is this the sort of thing that General Lemnitzer wants done, General White?

General WHITE. Yes, sir.

Mr. MAHON. Mr. Mendel Rivers of the Armed Services Committee is very much concerned about this and he has held some hearings on it and is going to appear before this committee next week.

Insofar as I know, this is the kind of thing that the friends of airlift want done, and yet the Defense Department is not requesting it apparently.

General WHITE. It is exactly the kind of thing, and I might say we want them, too, Mr. Chairman.

Mr. MAHON. What else?

General FRIEDMAN. Only one other item.

We requested \$12 million to pursue an accelerated program of rocket development.

I think General Holloway might explain that.

Mr. MAHON. What do you mean?

General HOLLOWAY. One of the tremendous expense items we foresee in the future, in both missiles and space, is the cost of rocket boosters. They are very expensive. The nozzles, for example, are made of the highest quality materials. They have to be cut to very fine tolerances, and all in all they are the most expensive. There is enough research to date to indicate that it is possible, and, in fact, it appears quite feasible, to make rocket motors that are on an order of magnitude cheaper than the ones we have today.

For example, if you could make a nozzle out of an ablative material, such as the nose cone of a missile, that would still work but would deteriorate at such a rate that it still is workable until the burnout point. It would probably cost a tenth or less than what the current nozzles cost.

There are other areas, such as variable geometry of nozzles through a sort of parametric spike, that might be preset or ultimately automated in flight. This would enable you to build one basic rocket

motor design that would have a tremendous number of applications, and this would be a cheap way to get flexibility.

There are a lot of areas like this that we feel would save a tremendous amount of money in the future as we go into space, if we get a little more research and development money to accelerate it now.

That is the nature of this request.

Mr. MAHON. General Friedman, will you place in the record a statement of where all of these add-on funds, which are included in your submission today, would fit in the appropriation bill structure?

General FRIEDMAN. We will be happy to do that.

(The information follows:)

Air defense reorientation summary of adjustments by appropriation

[Millions of dollars]

	Fiscal year 1960 new obligational authority			Fiscal year 1961 new obligational authority		
	Present program	Revised program	Difference	Present program	Revised program	Difference
Aircraft procurement.....	89.2	89.2		81.9	218.1	136.2
Missile procurement.....	1,338.4	1,338.4		1,824.7	1,546.7	-278.0
Military construction.....	517.9	557.9	40.0	166.8	146.1	-20.7
Research, development, test, and evaluation.....	351.1	376.7	25.6	296.4	407.2	110.8
Other procurement.....	510.4	429.8	-80.6	423.4	351.4	-72.0
Total.....	2,807.0	2,792.0	-15.0	2,793.2	2,669.5	-123.7

Mr. MAHON. Will you also give us information at this point in the record as to where these items would fit into your program insofar as appropriation language is concerned, if they should be approved?

General FRIEDMAN. Yes, sir.

(The information follows:)

The program adjustments which were discussed would not require any changes in appropriation language. These changes could be accommodated within the terms of the appropriation language and general provisions which are now in effect and as proposed in the President's budget for fiscal year 1961.

ADDENDA COMPARED WITH 1961 BUDGET

Mr. MAHON. Will you also state what the situation was with respect to your original fiscal 1961 submission with regard to this addenda which is included and the addenda which you sought to have included in your submission here in recent weeks to the Secretary of Defense?

General FRIEDMAN. Yes, sir.

(The information follows:)

Addenda requested versus addenda approved

[Millions of dollars]

	President's fiscal year 1961 budget ¹	Addenda requested	Addenda approved
ATLAS.....	991.2	136.0	136.0
Space.....	316.0	45.8	35.8
BMEWS.....	107.3	27.6	27.6
Rocket development.....	23.7	12.0	
MINUTEMAN.....	389.4	47.7	27.0
Gar-9/ASG-18.....		15.0	15.0
MATS MOD (on shelf procurement).....		75.0	
Interceptor improvement.....	81.9	136.2	136.2
C-130-B.....	70.4	32.0	
Surveillance.....	92.9	15.4	15.4
Total.....	2,072.8	542.7	393.0

¹Excludes military construction.

MILITARY CONSTRUCTION ASPECTS OF PROPOSED REVISIONS

Mr. MAHON. As suggested this morning, Mr. Sheppard, as chairman of the Military Construction Subcommittee, along with Mr. Sikes, Mr. Whitten, and Mr. Laird, in addition to their work on this committee, also have an important responsibility in connection with the program for military construction. Construction is involved in ways which I do not fully understand at this point, but as agreed to this morning, I will recognize Mr. Sheppard for 30 minutes and then I will recognize Mr. Ford, following which we will proceed in the regular order.

Mr. FLOOD. That is going to make it 10 minutes to 4?

Mr. MAHON. We also agreed that we will stay here until we get this completed this afternoon.

Mr. SHEPPARD. General Friedman, this morning I think you gave an answer to the question I am going to ask, but I would like to have it in here so that my questions will be in sequence and continuity.

I think your statement was that the total add-ons, as such, came to approximately \$400 million; is that correct?

General FRIEDMAN. It was \$393 million, sir, in new obligating authority.

Mr. SHEPPARD. The total of all of the add-ons?

General FRIEDMAN. That is correct.

General WHITE. All of the add-ons that fall within the expenditure limitation.

Mr. SHEPPARD. It is my understanding, and this has been discussed in different ways here this morning but I would like to get it clear in my mind at the moment, that insofar as the total clearance for presentation to this committee is concerned of the program you are presenting presently, the reductions, yes; add-ons, question mark.

Is that a correct or an incorrect interpretation?

General WHITE. Add-ons to the extent of equaling the expenditures approved by the Department of the Air Force for us to present to this committee. The add-ons that the chairman asked about, which equal the amount of NOA, have not been approved even for presentation to the committee by the Department of Defense.

I would put it this way: The Department of Defense has been silent on the subject.

Mr. SHEPPARD. And would obviously follow a different type of presentation than the one you are presently making because of your reprogramming possibilities and potentialities; is that right?

General FRIEDMAN. That is correct.

Mr. SHEPPARD. What will be the effect of your present proposal on the military construction requirement in the presently funded program that is pending before our committee that has jurisdiction over construction?

General FRIEDMAN. As Mr. Garlock indicated, there will be a problem insofar as authorization is concerned. However, Mr. Sheppard, we were able, by an adjustment to programs, to hold to the amounts contained in the President's budget for military construction. That is \$740 million including all accounts, and \$725 million for the regular Air Force specifically.

In other words, there was no change in NOA. There will be some change, however, in program composition which would be discussed in detail with your subcommittee.

Mr. SHEPPARD. Have you pursued this situation in the changing of your requirements, moneywise, in your construction bill so that there is no question of compatibility or detrimental reflections on the other services' construction requirements?

General FRIEDMAN. We do not know, sir: the only possibility is that which was raised by General White this morning insofar as General Kuter's position with regard to NIKE-HERCULES. I do not know that there would be any other possible impact on the other services than the one on the NIKE-HERCULES.

General WHITE. This would be a new problem. I am quite confident that anything we have in the public works side of this would not have any impingement on any other service.

Mr. SHEPPARD. What was the basis for your decision to stop BOMARC with the last site? What was the basis of the decision to stop at that particular place?

General WHITE. I suppose it really was money, Mr. Sheppard. We had to figure out the most economical place to make these cut-backs in order to have the money, we hoped, to go on to these other programs which we feel, in the overall context, will provide a better military posture for the Nation.

Mr. GARLOCK. It is a combination of where we happened to stand in the production of missiles and where we happened to stand in construction. This could not help have a bearing on this.

General Estes said these sites are all in the Northeast, if you recall.

Mr. SHEPPARD. Are you going to be in a position, when you appear before the Military Construction Subcommittee, to give the members of that committee a rather firm answer as to the acquiescence in this program in its entirety and firmness? I do not think from a practical standpoint you have gone all the way upstairs yet.

General WHITE. Yes, sir; we have, but upstairs has not gone all the way yet. That is the difference.

Mr. SHEPPARD. I do not want to be unnecessarily political, and that is not my point of view, but in press releases and declarations, the President of the United States has said that he knows what he

is talking about when it comes to the military. In the absence of his voicing his particular and personal concept of this situation at the moment, I obviously have to take the position that we are still undefined to that degree, is that right?

General WHITE. I am confident that the Department of Defense will be able to clear this up.

Mr. SHEPPARD. I have confidence in the President, too, but at the moment neither you nor I have sampled that confidence, have we?

General WHITE. We cannot go beyond where we are.

Mr. SHEPPARD. He may take your judgment 100 percent but I have known him to refuse to take the judgment of others; have you not?

General WHITE. That has occurred.

Mr. SHEPPARD. That is a problem until it is finalized and cleared up; is that correct?

General WHITE. Yes.

Mr. SHEPPARD. It occurs to me, gentlemen—and I tried to elicit this in responses in the presentation very carefully this morning—in this particular presentation you are presently addressing yourselves to, if it is consummated this puts a definite approval on the BOMARC as a good missile?

General WHITE. Yes, sir.

Mr. SHEPPARD. That is it?

General WHITE. Yes, sir.

BOMARC PROGRAM

Mr. SHEPPARD. What has been your experience with the testing program for BOMARC A and B since you were last before this committee? What is your particular attitude at the moment as compared to what your attitude was then? There obviously must be some change which has not been brought out to my satisfaction, and which I would like an answer to.

General WHITE. We have here Colonel Dietrich who can discuss that in detail.

Mr. SHEPPARD. Very well, whomever you desire.

Colonel DIETRICH. May I ask your permission to give a short briefing before we get into the question and answer? Then I will be glad to try and answer the questions you have.

Mr. SHEPPARD. What was that comment? I did not get your answer to that.

Colonel DIETRICH. With your permission, I would like to give a presentation very briefly which summarizes the flight test program for the A and B missile system.

Mr. FLOOD. Wait a minute. This is not right.

Mr. SIKES. The witness is answering the question.

Mr. FLOOD. I know he is answering the question but who runs this committee, an Air Force lieutenant colonel or the members?

Mr. SIKES. Customarily the principal witness may defer to other witnesses in our hearings.

Mr. FLOOD. I object, Mr. Chairman, because for 3 months we have decided that we are going to have a special hearing on BOMARC.

Mr. MAHON. And we are going to have a hearing on BOMARC.

Mr. FLOOD. Again?

Mr. MAHON. Yes.

Mr. FLOOD. Fine. I love that.

Mr. SHEPPARD. In your response to the question I have just raised, you are going to present a chart and briefing to the committee later that will answer my questions?

Colonel DIETRICH. Yes, sir.

Mr. SHEPPARD. All right.

I wish you would insert in the record the percentage of completions and expenditures to date on each of the BOMARC sites and the estimated cost of canceling the remaining work at each site.

General FRIEDMAN. Yes, sir.

(The information requested follows:)

BOMARC sites completed and under contract

Site	Percent complete (Apr. 1, 1960)	Current working estimate (thousands)	Cancellation costs (thousands)	Recoup (thousands)
McGuire.....	100	\$13,690	\$13,690	0
Suffolk.....	100	13,190	13,190	0
Otis.....	100	7,610	7,610	0
Dow.....	100	7,750	7,750	0
Langley (Site 1).....	88	6,060	6,060	0
(Site 2).....	55	2,700	2,170	\$530
Kincheloe.....	55	3,840	3,240	600
Duluth.....	65	3,800	3,230	570
Niagara.....	42	3,840	3,270	570
Paine.....	44	3,040	2,480	560
Adair.....	67	3,000	2,780	220
Travis.....	25	3,140	1,990	1,150
Vandenberg.....	44	3,000	2,440	560

NOTE.—Canadian sites not included.

Mr. SHEPPARD. When did you let the contracts for the last four sites, if you have done so?

(The information requested follows:)

Sites for which no construction contracts have been awarded:

Fiscal year:	Site
1959.....	Malmstrom.
1959.....	Glasgow.
1959.....	Minot.
1961.....	Charleston.

Last four sites for which construction contracts were awarded:

Fiscal year	Site	Awarded
1959.....	Paine.....	Aug. 4, 1959
1959.....	Adair.....	Do.
1959.....	Travis.....	Oct. 28, 1959
1959.....	Vandenberg.....	Aug. 3, 1959

Mr. GARLOCK. The last four we let were on the west coast and we will give you the dates when we let those contracts.

Mr. WHITTEN. Will you yield to me briefly to ask him if he means by that that you have some authorization but have not let them?

Mr. GARLOCK. Yes. We have additional site authorizations and money where we have not let any contracts.

Mr. SHEPPARD. In the letting of those contracts, was your A. & E. work perfected at the time you let the contracts, and, if so, to what degree?

General CURTIN. I am sorry but I did not hear.

Mr. SHEPPARD. Read the question, please.

(The question was read.)

Mr. SHEPPARD. Perhaps the word "perfected" should be supplanted by the word "definitized" so you could use the contract procedure for some degree of understanding without going into an explanation of what will be done without a lot of change orders and so forth.

General CURTIN. Yes, Mr. Sheppard.

The A. & E. work was definitized to permit orderly progress of the work to the standard we hope to achieve in all construction.

Mr. SHEPPARD. All right; that is your answer and you are responsible for it. I am not.

General CURTIN. Yes, sir.

Mr. SHEPPARD. What recoupments would be possible if the last four sites were stopped as of now?

General CURTIN. The last four sites for which contracts have been let?

Mr. SHEPPARD. The gentleman on your right said we let four on the west coast and those are the ones we are addressing ourselves to exclusively at the moment.

General CURTIN. How much money can be saved?

Mr. SHEPPARD. That is right.

General CURTIN. I cannot give you a precise figure but I can give you an order of magnitude.

I suspect that the savings will be an average of up to \$600,000 per site, sir.

Mr. SHEPPARD. In other words, those sites have proceeded in their construction completeness to that degree?

General CURTIN. I am now trying to estimate what the contractor will buy out on a negotiated basis. Usually we get taken pretty badly on this.

Mr. SHEPPARD. I can go along with that.

EFFECT OF PROPOSED REVISIONS OR OTHER ASPECTS OF AIR DEFENSE PROGRAM

This particular presentation this morning, General White, is intriguing to me, in a way. I am not being critical at all, but I am thoroughly curious about the whole situation. What is the ultimate going to be?

To me this more or less punches right in the middle of your so-called air defense program and changes the complete philosophy—perhaps I should not say "complete" but I will say "proportionately"—and to a large degree changes the complexion of the decisions made in this particular field up until, we will say, this presentation.

It really switches the entire technique, does it not?

General WHITE. I do not think it is as radical as that, Mr. Sheppard. It does take funds from defense against the air-breathing threat as presented in the basic 1961 budget to produce a lower level than planned under that program for defense against the air-breath-

ing threat, but provides a better than existing defense at an earlier period, and by virtue of the savings proposes to put the funds on what we consider to be against higher risks.

Mr. SHEPPARD. This also goes beyond the abilities of the BOMARC itself, or any missile of like character as far as that is concerned. This is now influencing what I understand to be a large portion of our communication requirements as heretofore presented and definitely indicated as necessary.

General WHITE. Communications, sir?

Mr. SHEPPARD. Yes. I am talking about your SAGE operation.

Mr. GARLOCK. SAGE operations and large communications.

As a matter of fact, we have special authority for entering into these lease agreements with the telephone companies. We have not made any evaluation as to the extent to which this change may modify that particular cost.

Mr. SHEPPARD. Insofar as we know at the moment, this has not been shaken down to the degree where you feel justified in saying to this committee that it is going to have any effect of diminishing or increasing?

Mr. GARLOCK. It would have to diminish. It is a case of how much.

Mr. SHEPPARD. To what degree are we downgrading that so-called communications requirement as against the total communications requirement as heretofore justified before the committee?

Mr. GARLOCK. I am premising my statement on the basis that there will be less in dollars. Every time you take out a radar or any other installation of that kind that has to be connected with another place, you have taken out the fixed communication line we had to have with it. That would not necessarily have any effect on the overall communications problem; it would not necessarily.

If you remember, on that area on that that showed white with no radars—well, when we had planned to put radars and all of those things in there, we would have had to put in communications which would have been associated just with this system but would not have been associated with any other commands and control communications for general use.

Mr. SHEPPARD. In other words, in dropping out what is being deleted from the SAGE program at the moment, this, then, is not going to have any detrimental effect upon your so-called communications system that previously was justified before this committee as being an intense requirement for backup purposes and operational purposes?

Mr. GARLOCK. That is my opinion, but I would rather have my cohorts in uniform comment on that.

Mr. SHEPPARD. Whoever wishes to answer that.

General ESTES. I would say that is correct. It has no impact on that.

Mr. FLOOD. I do not understand the question and answer.

If I understand the question, I do not believe the answer.

Mr. SHEPPARD. My question was predicated upon the following: We have all sat here and listened to the story on SAGE requirements. The requirements for what? Backup and operational requirements. That is the way it was presented and conveyed, as I recall.

We needed this as a secondary requirement. And now, by backing out of it, what are we losing in the communication aspect? The gentleman said "Nothing."

Mr. FLOOD. Is that right? Is that what you said?

General ESTES. In the SAGE system we are talking about putting in, there are communication requirements for those centers that have direct connections with radars, direct connections between centers and direct connections from centers to combat centers and direct connections to Norad. In addition to those regular circuits, there are alternate routings if you lose one line, so you have another line. Those are backup lines. Then there are certain engineered circuits you can call out if you require further backup.

In the supercombat center program, which we are recommending be deleted, you would have had to provide additional communications to those centers in addition to the communications you had otherwise.

Mr. FLOOD. I know all of that, but I think what Mr. Sheppard implied was that if all of that is true, why did you ask for it in the first place?

General WHITE. To go with the supercombat centers we previously asked for.

General ESTES. That is required for SAGE and is still going to be there. It has to be there. It has to be there for the supercombat centers and that all comes out.

Mr. FLOOD. I do not want to cause any trouble with this thing. Forget that I brought it up.

Mr. SHEPPARD. What you have done here is to eliminate your so-called hardened Norad headquarters approach that heretofore you were interested in securing?

General WHITE. That is correct.

Mr. SHEPPARD. That ties right back again into what you are talking about because there were component parts in the hardened operation. At least, that is my interpretation of all of the testimony I have heard.

General ESTES. The hardened communications associated with the hardened combat center would go out.

Mr. SHEPPARD. You are dropping this out and SAGE?

General ESTES. As far as the supercombat center is concerned.

General WHITE. Associated combat centers drop.

Mr. SHEPPARD. What are you going to do on the Colorado situation? You have about a million dollar road running up the hill to nowhere. What is going to happen?

General WHITE. We intend not to build it as of now.

Mr. SHEPPARD. That falls out with all other so-called hardened headquarter presentations we have had heretofore?

General WHITE. Hardened ones; yes, sir.

This is in the air defense field we are talking about.

Mr. SHEPPARD. General White, I know that is true, but insofar as you know in your requirements as of the moment, your answer is correct.

Now, if we come along later on—and I am not quarreling with it at all—and if there is something unforeseen at the moment which develops, you might possibly use it, but as of the moment the answer is "No"?

General WHITE. That is correct.

Mr. SHEPPARD. Because that falls by the wayside, the rest of them do?

General WHITE. That is correct.

CADIN COMMUNICATIONS SYSTEM

Mr. SHEPPARD. What do you propose to do about the so-called CADIN communications system for which you are presently requesting funds in this year's program?

General ESTES. The CADIN package remains essentially the same, Mr. Sheppard.

This will certainly require some modification of the CADIN package.

It is impossible, however, to state overnight what those modifications will be. It will be necessary for the Canadians and NORAD jointly to review this entire CADIN package.

ABILITY TO LOCATE DOWNED AIRCRAFT

Mr. SHEPPARD. Mr. Chairman, with your permission, I would like to deviate from construction and go back to other matter for a moment.

General White, you have many airplanes constantly flying with some in use for detection and other purposes. It would occur to me that when you have trouble with them, it is most important for you people to locate that plane immediately.

General WHITE. Correct.

Mr. SHEPPARD. In fact, it is equally important that you locate it immediately whether it is in a military category or in some other passenger-carrying civilian craft, or whatnot?

General WHITE. Yes, sir.

Mr. SHEPPARD. At the moment, do you have any estimate what the average cost is when you send out search planes to locate a downed plane? Has there been any reasonable assumption as to the cost factor involved?

General FRIEDMAN. No, sir. This would be very difficult. It would depend on the type of plane and the number of hours in search. The closest you could come to it, Mr. Chairman, would be to take a hypothetical case and say that if it is of a C-47 type, it would normally cost on the order of \$100 per flying hour—to include maintenance, overhaul, fuel and oil, and other direct costs. This is about as close as we could come today.

General WHITE. I would put it another way, if I might. I think that is true, too. I think, if you like, we could take some actual cases and perhaps trace down what the costs were. They vary widely according to the type of action, location, and so on.

Mr. SHEPPARD. Based upon some responses I received in the field when I was recently making a survey and your people were very gracious and courteous in their responses, the general estimate for any search that runs over 24 hours would be \$150,000 to \$200,000. That was an estimate.

General WHITE. Even in this day and age, that seems high to me. Flying hours are expensive. Personnel pay would be included. We make contracts and quick arrangements to get ambulances, doctors,

and all the rest of it, to the scene of the accident if they are available. On an emergency basis, I am sure the costs are extra high.

Mr. SHEPPARD. Of course, there are many ramifications here aside from the dollar. None of us can set a price upon a human life, and nobody intends to. It is a very unfortunate situation.

Getting to the basis of this thing, I have been advised by the military people with whom I have talked in various different locations that the more rapidly that you, the military, can determine that plane's physical location where it cracks up, the better it is for you and everybody else.

General WHITE. There is no question about that.

Mr. SHEPPARD. If you could determine it within, let us say, 15 minutes after the plane went down, would you consider it would be an advisable thing to do if the expenditure was within the bounds of reason?

General WHITE. We are assuming that this is something that really works and within reasonable costs. I would say it was very desirable and a thing that we would owe to our people and to the Nation.

Mr. SHEPPARD. I am very glad to hear you say that, because you already have, and the Government has bought and paid for, at least 75 percent of research and development, what is known now, without having an official name hung onto it, as the plane down locator. It is a beeping device that goes off on water and land. It has been tested and it works. The item itself is a very light payload thing, not anything which will create an extra weight problem. The device can be put on the plane at a conservative estimate for less than \$7,000. It is my understanding that we have four requirements indicated in that field. With the tremendous responsibility you in the military have, not only in locating these planes but locating people, irrespective of who may be making it, why are we not interested in doing this?

General WHITE. I believe we are investigating this.

Mr. SHEPPARD. You have not been expressing a view from any source for the last 11 months. It has been operational. It has been tested on water and it has been tested on land by the military itself.

General WHITE. I have only general knowledge that there is such a system and that our R. & D. people are aware of it.

Mr. SHEPPARD. We have so many other things that are important. They are all important, but it seems to me here is an item which somebody is overlooking, and I am wondering whether we find ourselves in a position dollar-wise that we just cannot afford to look at things like that. Yet when you look at a situation of this character and something else over here that we are procuring, the difference between the two is so outstanding it makes it very difficult to understand.

We have had people lost in Air Force and in other military aircraft, and it has taken us a long time to find them. I should think insofar as the immediate locating of those planes, you people want to get your hands on them as fast as you can. Is that right or wrong?

General WHITE. I would have to say, Mr. Sheppard, it is like the Government insuring itself. I am sure we would have to consider how many aircraft are not located within so many minutes, what is the incidence of that, and then weigh it against the cost to complete it. You would have to have one in every aircraft in the inventory. I can only say that I will now have a look at it myself.

Mr. SHEPPARD. I am calling it to your attention for that purpose. As I say, I have no interest in the situation other than I have seen it operate. The military have produced their own pictures of its operation, both on land and on water. There is no question that it is available and almost an off-the-shelf operation. I think it merits a lot of consideration.

Mr. Chairman, I have some other questions, but they have already been answered to a reasonable degree through your inquiry, and I do not want to take any more time.

(Off the record.)

Mr. MAHON. Mr. Ford.

REASONS FOR PROPOSED REVISIONS

Mr. FORD. Mr. Chairman, since January the Secretary of Defense, the various civilian Secretaries, the Chiefs and others, have submitted justifications for the 1961 budget. Throughout the hearings it has been indicated that when new information was available on programs, we would hear from them if there were certain breakthroughs which justified revisions in the program or programs as submitted to us originally for fiscal year 1961. It always has been my feeling that rigidity based upon stubbornness is completely indefensible, and that flexibility based on new information is very commendable.

I gather the impression here that the Air Force is taking the route of flexibility based on new information. Is that the basis for this presentation, General White?

General WHITE. Mr. Ford, I have to downgrade that a little bit. It is not based so much on new information as it is, let us say, new concepts based on better studies. There are new inputs. That alone has had a great bearing on our decision to recommend that the super-combat centers be cut back. So it is a combination of both. I think a fair statement would have to include, in addition, greater study and an opportunity to have digested and analyzed the master air defense plan implications.

Mr. FORD. The original 1961 fiscal year budget was put together more or less starting in September of 1959, and submitted to the Congress in January.

General WHITE. That is correct, sir.

Mr. FORD. The net result is that 5 or 6 or 7 months have passed by between the inception of the fiscal year budget in its original form and what is before us today.

General WHITE. That is correct.

Mr. FORD. If you had had the information in September-October 1959 that you have today, would you have come up with this kind of program that we have before us now, rather than the original 1961 budget program?

General WHITE. That is a difficult thing to give a categorical answer to. I would say something approximating this might well have been the plan rather than the one we have submitted. The master air defense plan really was a considerable change, and it just took time to adjust our thinking to it, to convince certain people that further changes could be made to the overall benefit of our national security. Then we had the various steps, such as the briefing of NORAD, the

Joint Chiefs, and the Department of Defense angles, all of which have taken time.

Mr. FORD. Basically, you would have made the same decisions in the fall of 1959 that you are making now if you had this information and had the benefit of these studies?

General WHITE. That is correct, sir. I would say, had we made the analysis we have made starting in December, I think it was—had we made the same analysis in September that we made in December, I think we would have come somewhat close to this same position.

NEED FOR IMPROVED DETERRENT CAPABILITY

Mr. FORD. It has always been the Air Force philosophy, as I understand it, that an overpowering offense is a great, if not the greatest, deterrent to any war, all out or limited.

General WHITE. That is correct, sir.

Mr. FORD. I assume it is the Air Force's position that if you bolster your offense, you can afford to take perhaps a little different view of what you need in the way of a defensive capability. Is that correct?

General WHITE. Of course, our philosophy is based on the fact that offense is the best defense. First, we must have a deterrent, so we hope we do not have a war. But we must not only provide the offense to be sure that we can prevail if war does come, but we must blunt the enemy's attack to what I would term the limit of the law of diminishing returns. That is very difficult to define in this situation. I cannot begin to do it. But I am perfectly certain that the subject of air defense could absorb the national budget, and you still could not guarantee 100-percent defense. So, in the final analysis, it is a matter of judgment at what level you balance out between offense and a minimum adequate defense.

Mr. FORD. As I look over the listing here of those items on the addenda, a vast majority of the increases are in the offensive capability.

General WHITE. Dollarwise, that is true, with the exception of the interceptor improvements, which we feel are a vital part of this whole program, because if that fell out, the program, in my opinion, would not give us an adequate measure of defense.

Mr. FORD. The net result is that if the addenda is approved both by the Congress and the Executive, your offensive capability will be increased.

General WHITE. It will be increased.

Mr. FORD. If we increase our offensive capability, under the theory of the Air Force that is an increase in our deterrent capability.

General WHITE. Yes, sir.

Mr. FORD. That in itself will not make General Kuter feel any better because he has had some revisions in his program. Nevertheless, from the overall point of view of the country, you think it is a sound program?

General WHITE. I do. That expresses it exactly. General Kuter is charged with one thing and, to put it hypothetically, had it been the other way around and as a result of analyses we felt something should be taken off SAC and put on Air Defense, I am sure General

Power would have been very unhappy about that. It is exactly the same type of thing.

Mr. FORD. Can the committee assume that the items listed here in the addenda group are the ones which the Air Force is recommending as of the highest priority when you relate those listed here with those three or four which were eliminated or slightly reduced?

General WHITE. It is my best judgment, sir, that these represent the highest priority items within the dollars stated.

PROBABLY SAVINGS AS A RESULT OF PROGRAM CHANGES

Mr. FORD. As has been testified, you are going to have cutbacks in BOMARC and SAGE. Are you going to lose any money by these changes? Will there be any substantial cancellation costs because of the changes or revisions in the programs?

General WHITE. One occurs to me right away. As Mr. Sheppard has indicated, there are some BOMARC sites which are partially constructed now which under the new program will not be completed, and that will be a complete loss. I do not think the dollar value is very high, but as far as I know, it will be a complete loss.

Mr. MAHON. You can approximate it at this point in the record.

General FRIEDMAN. Very well.

Mr. SIKES. As I recall it, we funded 15 BOMARC sites in the fiscal 1959 and prior programs.

Mr. GARLOCK. We have not contracted for them as yet.

Mr. SIKES. Now you propose to have ———. Relate the difference between the 15 and the presently planned ———, will you?

General FRIEDMAN. How much per site?

General CURTIN. About \$6 million per site including augmentations.

General FRIEDMAN. About \$12 to \$14 million would be the difference, I understand, in the program.

Mr. SIKES. Have you contracted for any of the sites above ———?

Mr. GARLOCK. Two.

General FRIEDMAN. Have we contracted for any above the ———.

General WHITE. How many BOMARC sites have we contracted for as of now?

Mr. SIKES. Above ———.

General CURTIN. Two above ———. That makes a total of ——— sites.

Mr. GARLOCK. The answer is correct.

There are four sites under contract on the west coast. They run from Washington down to California.

Mr. SIKES. It would be well if you submitted a statement showing exactly what the situation is, the number of sites and the money we shall pick up as a result of this change, if any.

Mr. FORD. I am not sure the question has been asked and a response given, but I think we ought to show not only the BOMARC cancellation costs if this program materializes, but also the SAGE super-center cancellation costs if this program is executed. In other words, we want the full picture.

General FRIEDMAN. We will give that for both systems, sir.

(The information requested follows:)

Costs of amended programs versus fiscal year 1961 budget request—Development, construction, and equipment program requirements

[In millions]

BOMARC

	Fiscal year 1959 and prior years	Fiscal year 1960	Fiscal year 1961	Balance to completion	Total
Program per President's fiscal year 1961 budget.....	\$1,799.4	\$394.1	\$421.5	\$451.3	\$3,066.3
Proposed amended program.....	1,777.4	394.1	40.4	0	2,211.9
Difference.....	1 - 22.0	0	-381.1	451.3	-854.4

SAGE

	Fiscal year 1959 and prior years	Fiscal year 1960	Fiscal year 1961	Balance to completion	Total
Program per President's fiscal year 1961 budget.....	\$1,165.9	\$290.2	\$235.2	\$291.6	\$1,972.9
Proposed amended program.....	1,165.9	138.4	102.8	166.9	1,574.0
Difference.....	0	-141.8	-132.4	-124.7	-398.9

¹ Represents savings against fiscal year 1959 and prior amounts as contained in fiscal year 1961 President's budget. This amount (\$22 million) is included in current line item reprogramming of the military construction program.

Cancellation costs for the SAGE supercenter program are only associated with the preplanning and design of the centers. It is estimated at this time that less than \$500,000 would be involved.

USE OF INTERCEPTOR AIRCRAFT IN LIEU OF MISSILES

Mr. FORD. It has been indicated that under this program you will procure ——— operational BOMARC B's. The suggestion has been made by one of the committee that perhaps even those missiles should not be procured; that it might be wiser to procure interceptors in replacement. The testimony has indicated that those interceptors, if procured, would cost about \$4 million per aircraft.

General FRIEDMAN. That is correct, sir.

Mr. FORD. For the record, what would be the total cost of those interceptors if they were procured?

General FRIEDMAN. If you were to procure them on a one-for-one basis, it would be slightly over a billion dollars. Therefore, if the savings in the BOMARC was of the order of \$250 million, as I indicated before, you would have a net increase in requirements of something on the order of \$750 million.

Mr. FORD. As I recall the testimony of General Estes, or General White, you have to procure interceptors on a one-for-one basis.

General ESTES. That is the opinion of the Air Defense Command, as checked with NORAD.

Mr. FLOOD. You mean missile per plane? Just missiles? Weapons system? You mean missile? Is that your question? Missiles?

Mr. FORD. The statement was made that we would have to procure a plane to replace a missile.

Mr. FLOOD. Oh. Just so I know. A plane for a missile.

REQUEST FOR ADDITIONAL FUNDS FOR ROCKET DEVELOPMENT

Mr. FORD. General Holloway, you indicated that \$12 million had been requested in rocket development. It did not make the grade, prioritywise, in this list before us. How much is there in the R. & D. budget currently for rocket development for fiscal 1961?

General HOLLOWAY. I do not know exactly, sir. We would have to furnish that.

General FRIEDMAN. It is about \$24 million, Mr. Meyer tells me.

Mr. FORD. In other words, there is \$24 million in the current 1961 budget program. The \$12 million was over and above that?

General FRIEDMAN. That is correct.

I would like for the record to indicate what kinds of rocket developments we have already in the fiscal year 1961 budget.

(The information to be furnished follows:)

The amount in the current budget for rocket development in fiscal year 1961 is:

Liquid rocket technology-----	\$11,490,000
Solid rocket technology-----	12,292,000
Total rocket development-----	23,692,000

Mr. FORD. That is all, Mr. Chairman.

(Off the record.)

Mr. MAHON. I recognize Mr. Sikes for 15 minutes.

Mr. SIKES. It is my understanding that the sums which have been listed previously do not affect the BOMARC test program, the R. & D. program.

General WHITE. No, sir.

Mr. SIKES. Is it planned to continue the R. & D. or testing program on BOMARC even if this operational cutback in BOMARC is approved?

General WHITE. That is correct. The full test program will continue.

Mr. SIKES. What do you propose to buy with the \$40.5 million that is still included in the BOMARC program for fiscal 1961?

Mr. MEYER. \$19.5 million of that is for completion of the development program, and the balance is procurement of ground support equipment—cleaning up the squadron equipment.

Mr. SIKES. How much of the BOMARC program is now available and operational?

General ESTES. I have a chart, Mr. Sikes, which we can give you on it.

Mr. SIKES. May we see it?

General ESTES. Colonel Dietrich has the exact figures, and I would prefer to have him give you the exact figures. We have just gotten the latest information on it, and I would like him to show it to you, if we may.

EXISTING BOMARC A CAPABILITY

Colonel DIETRICH (slide). Mr. Sikes, the five bases containing the BOMARC A missile are listed here. The combat-ready missiles at these sites are listed over here. These are the missiles on hand at these sites, and those which are combat ready.

Mr. SIKES. We do have a substantial capability in BOMARC A at this time. That is an important fact.

Colonel DIETRICH. Yes, sir. One site has a substantial capability. It is not fully operational ready. It is not scheduled to become operational ready until May. These are initial operational capability dates when we have one missile on the site, checked out and ready to go. This schedule was met as indicated by the diamond on September 1 at McGuire. The December date was met at Suffolk. At the present time we have ——— combat-ready missiles. They are processing them in at about ———.

Mr. SIKES. All right, what is the situation on the others?

Colonel DIETRICH. We have had about a month's slippage in the operational capability of these two bases.

Mr. SIKES. When do you expect those two to be operational? The one at Otis, Mass., will be operational when?

Colonel DIETRICH. Actually, it is the ———.

Mr. SIKES. When is Dow, Maine, to be operational?

Colonel DIETRICH. Dow is to be operational ———.

General ESTES. Those are initial operational dates.

Colonel DIETRICH. At Langley, the first operational missile will be ready to go ———.

Mr. SIKES. Would that capability in five existing bases be lost if you were to cancel the entire BOMARC program?

Mr. GARLOCK. It would be almost impossible to cancel that because the missiles are almost all complete and the construction is complete. We have not proposed any cancellation of "A" and none of the figures we have given here have assumed any cutoff of the A program. I am sure if you examine it you will find it is so far down the road that it is almost impossible to stop it.

Mr. SIKES. Then such cancellation would be a very unwise thing to contemplate, both from the standpoint of costs and needed defense.

Mr. GARLOCK. Yes, sir.

CANADIAN BOMARC PROGRAM

Mr. SIKES. What is the situation in Canada? Do you know how far toward operational capability they have progressed?

General ESTES. Yes, sir. The Canadian sites are not supposed to become operational until ——— because they have no A missiles. They are entirely B missiles. The Canadians—I believe this figure is essentially correct, sir—are about ——— percent complete with the construction of their first site, which is ———. They have not yet started construction on their second site.

Mr. SIKES. They have notified you, I believe you stated, that they intend to continue with the BOMARC B program.

General ESTES. They have, sir.

Mr. SIKES. Where is their BOMARC B testing being done?

General ESTES. It is being done as a part of our program, sir.

Mr. SIKES. They benefit from our test program. They do not have an R. & D. program of their own.

General WHITE. They are dependent on us for the BOMARC program insofar as testing and development are concerned.

VULNERABILITY OF "SOFT" CONTROL SITES

Mr. SIKES. To what extent are you disturbed about vulnerability from the soft configurations which we will have if we eliminate the hardened complexes which you propose to eliminate?

General ESTES. Obviously, sir, it would be preferable to have an extremely hard center that you knew would survive a missile attack. As General White pointed out in his testimony earlier, if you do this, then you have to go for hardening the whole system, and the costs become astronomical. What we have tried to do, therefore, in our analysis, is to provide a manual backup to the soft SAGE. There is already a backup in the SAGE system itself. If one center is knocked out, the two adjacent centers can pick up that area. If two centers are knocked out, we have recommended for NORAD's study putting a limited number of individuals on what we call a firehouse manning concept at certain selected radar sites, of these modernized radars that I have mentioned, and further, that they establish five similarly manned manual divisions. These would not be located in the same area as the SAGE centers themselves. In the event, then, that the SAGE center at any particular area were eliminated, you would still have certainly a very considerably degraded capability, but nonetheless still a capability to conduct an air battle with interceptors. This is one of the reasons for the recommended improvement in the fighter-interceptors.

Mr. SIKES. What substantially, other than hardening will you lose from the SAGE system as a result of the cuts which are proposed?

EFFECT OF CHANGES ON AIR TRAFFIC CONTROL CAPABILITY

General ESTES. You lose capacity as well, sir. Furthermore, you will lose an ability to operate with the FAA in flight planning, national air traffic control, to the degree that we would have been able to accomplish with the supercombat centers in the future, the FSQ7-A computer, as it is known.

Mr. SIKES. Do you still feel you will have a substantial and effective operational capability?

General ESTES. As far as air defense is concerned, yes, sir. As far as FAA is concerned, I have talked with Mr. Quesada about this. He understands the situation and recognizes that we must immediately sit down to devise a new plan for national air traffic control.

Mr. SIKES. Is that new plan likely to run into such a substantial sum that there will actually be no savings?

General ESTES. Insofar as the FAA request is concerned, sir?

Mr. SIKES. Yes.

General ESTES. Mr. Sikes, I cannot answer that, sir, because we have not yet had the opportunity to work with Mr. Quesada's people and, therefore, I have no real basis for giving you a factual answer.

ANTICIPATED SAVINGS RESULTING FROM CHANGES

Mr. SIKES. You have given us the anticipated savings in fiscal 1960 and fiscal 1961. Are there 1959 and prior savings in this program as you have outlined it?

General FRIEDMAN. No, sir; there are not. We have projected out on a basis through completion, and it is our estimate this plan would run about \$2 billion less cumulatively over the period than the plan we are proposing today.

Mr. SIKES. Is R. & D. money included? I think you might well provide a summary for the record, if it would be preferable to do that.

General FRIEDMAN. We shall be happy to do that, sir. We can show you the long-range cost on both plans and the difference.

Mr. SIKES. Are the savings in R. & D. money included in the program you have presented to us, or is that an additional amount?

General FRIEDMAN. The figures I have given you cut across all appropriations. As I indicated to the chairman, I would give you a breakdown by appropriation.

(The information requested follows:)

Air defense reorientation, summary of adjustments by appropriation—New obligatory authority, fiscal years 1980-85

[Millions of dollars]

	Aircraft procurement	Missile procurement	Military construction	Operation and maintenance	Military personnel	Research, development, test, and evaluation	Other procurement	Total
Fiscal year 1980:								
Present program	144.4	394.1	126.2	339.8	256.7	26.0	355.7	1,642.7
Revised program ¹	144.4	394.1	68.7	339.6	256.7	26.0	296.4	1,495.9
Difference			-57.5				-89.3	-146.8
Fiscal year 1981:								
Present program	116.8	421.5	80.0	406.8	307.4	13.6	361.0	1,707.1
Revised program ¹	116.8	40.5	69.3	406.8	307.4	13.6	246.0	1,190.4
Difference		-381.0	-20.7				-115.0	-516.7
Fiscal year 1982:								
Present program	80.5	451.3	13.0	450.8	328.1	3.0	306.7	1,633.4
Revised program ¹	144.0	4.0	44.0	402.7	292.2	8.0	221.6	1,116.5
Difference	63.5	-447.3	31.0	-48.1	-36.9	5.0	-85.1	-516.9
Fiscal year 1983:								
Present program	64.2	10.0	10.0	491.4	334.0	2.0	165.9	1,077.5
Revised program ¹	64.9	4.0	30.5	413.5	296.8	2.0	135.8	947.5
Difference	.7	-6.0	20.5	-77.9	-37.2		-30.1	-130.0
Fiscal year 1984:								
Present program	61.2	5.0	8.0	530.1	333.9	2.0	111.7	1,051.9
Revised program ¹	61.9	4.0	5.8	423.5	283.7	2.0	88.4	869.8
Difference	.7	-1.0	-2.7	-106.6	-50.2		-22.3	-182.1
Fiscal year 1985:								
Present program	52.2	5.0	6.0	512.4	334.3	1.0	121.7	1,032.6
Revised program ¹	52.9	4.0	5.2	383.3	299.1	1.0	96.3	801.8
Difference	.7	-1.0	-.8	-129.1	-65.2		-35.4	-230.8
Total (net)								-1,723.3

¹ Less addenda.

COMPARISON OF BOMARC AND F-106 COSTS

Mr. SIKES. What is the relative cost of maintenance and operation for the F-106 as compared to the BOMARC?

General FRIEDMAN. On the F-106, our annual operating costs, to include personnel, pay and allowances, replacement personnel training, and normal maintenance, we would estimate \$9.2 million annually. The BOMARC would run approximately \$2.8 million annually on the same basis.

Mr. SIKES. Then there would be very substantial savings in BOMARC over F-106 in the M. & O. funds each year the program is operational.

General FRIEDMAN. Yes, sir.

Mr. SIKES. Which we have not previously considered and which could run into hundreds of millions.

General FRIEDMAN. Yes, sir, that is correct, sir. When you say "previously considered," sir, this savings certainly will accrue in subsequent years.

Mr. SIKES. You seem to have some new apprehension about an increase in the number of Soviet supersonic bombers. The information given to us previously this year has pointed in the other direction. On what do you base this new apprehension?

(Discussion off the record.)

Mr. SIKES. If I may return to my question about M. & O. costs on F-106 as compared to BOMARC, would you provide for the record some projection into the future if the F-106 were substituted for BOMARC?

General FRIEDMAN. I certainly will, sir.

(The information requested is at p. 34.)

(Off the record.)

Mr. SIKES. That is all, Mr. Chairman.

Mr. MAHON. Mr. Whitten.

RELIABILITY OF INTELLIGENCE ON SOVIET BOMBER PRODUCTION

Mr. WHITTEN. General, it is hard to sit on this side of the table and decide what to do. I am sure it is difficult also on your side. But in an effort to decide, I think we have to look at this in the atmosphere in which it is presented.

Khrushchev and the Russians are going over the world saying how much stronger they are than the United States, and trying to sell the people for whose support we are competing. If he does not succeed in selling his own strength, about all he would have to do to prove his superiority is quote various people from the United States to prove that he is stronger.

I recall a few years ago when, due to speeches made in the other body, and by public figures, about the defense of this country being tragically low, Russia had all these big bombers, they showed one or two prototypes in the May Day show in Moscow—I hate to see those things get into the political arena, but what disturbed me worse was to see our Secretary at that time, Mr. Wilson, run down here and ask the committee for \$600 million more to order some more big bombers. He said to me that it was just a coincidence that he came after all

these speeches by members of another party that we were letting defense "go to pot." The Congress went along. Now it is agreed Russia never had them.

I think we are all not unaware that we are living in somewhat the same period when the public officials are contending that defense has gone by the wayside, and here we find the Defense Department following such speech coming down here wanting to change the whole pattern of the defense at a moment's notice after we have had months of hearings on what was supposed to be the best judgment of our military leaders.

PRESSURE TO RETAIN BOMARC

We also know that last year this subcommittee gave serious attention to refusing to go along on further procurement of BOMARC on the ground it had not been proven. There is no evidence here this afternoon yet that it has been proven, even now. There was a close vote in the committee last year, as I think is publicly known. All the hotels in town made a lot of money out of Boeing people down here, so I am told, to get the procurement contracts through.

They had private meetings with some members of this subcommittee, so I am told, in an effort to prevent cancellation of the contract.

Insofar as the moment is concerned, other than General White's statement that he has high hopes and reason for high hopes for the success of BOMARC, there is no proof before this committee that BOMARC has ever proved that it will work to any great degree, which leads one to wonder that perhaps the Defense Department has not recognized several things: If they have problems in the political arena with these charges about our defense, and that based on history they might have a problem with the Congress on the continuing purchase of BOMARC or that BOMARC is a questionable weapon, so you scale back but keep enough on order to maintain appearance of defense and bail out Boeing.

So in this presentation which comes down here today, after we have had hearings for months and have received the best statements from all Department of Defense representatives, including yourself, and Mr. Sheppard has started the hearings on military construction, before another subcommittee of which I am a member, on the face of it it seems to me somebody should develop whether or not you yourself have decided that BOMARC hasn't got it and it is an undependable weapon, that Congress might not go along with you, and therefore you had better get you some other defense here. But in order to be fair with Boeing and in order to keep up the appearance of BOMARC until it flops completely, you will go along with a certain number.

I am just describing the atmosphere that makes it hard for me to determine how much of this new plan is military and how much of it may be in connection with all these surrounding facts. I would like to know again, if I may, what have you done since last year with BOMARC which would give us any evidence, other than your high hopes, that BOMARC will work?

General WHITE. May I talk to the entire philosophy that you have stated?

Mr. WHITTEN. I wish you would. I was not trying to make charges. I think you recognize what I say to be causes for wonder, to say the least.

General WHITE. I recognize that from where you sit, the statements you have made could appear reasonable. I would like to say that I will have been, next June, 40 years in the uniform of the United States. I think it is also fair to say that I personally—alone—am responsible for bringing this program here. I have no political affiliation. I have never voted.

Mr. WHITTEN. If you will permit me to interrupt you, General—

General WHITE. There are no considerations in this thing other than my best judgment backed by the Air Staff, which I consider to be highly competent, to provide a better overall defense for the national security than the earlier program.

Mr. WHITTEN. May I say, General, that I appreciate that statement. I am raising these points not in any way to reflect upon you, because I have the highest regard for you. Only by pointing these things out in the record can we get the statement from the other side.

General WHITE. I am sure of that, sir. At the same time, I think I should respond.

Mr. WHITTEN. I think you should, and I meant for you to.

General WHITE. As for the virtues and lack of virtues of the BOMARC I can only say, as I said earlier, that from the best advice I can get from the head of our R. & D., from our chief scientist, from our Assistant Secretary of Defense for Development, from the people who work with this system, I have enough confidence that it is going to work to make this recommendation.

These new weapons are fantastic in their intricacies. A year ago we were worried about the ATLAS. Many people are still worried about the TITAN. I stated, both last year and this year, that both of these systems are going to work. The BOMARC is perhaps in its way an equally intricate mechanism. We have endeavored to compress the development of the improved BOMARC into a period of 3 years. We have had failures with BOMARC just as we have had failures with every other one of these new systems. But they can be worked out, and they are going to be worked out.

Mr. WHITTEN. General, I want to say again, by trying to describe the atmosphere in which we meet this immediate problem from my side of the table, I was using an awfully tough expression just to bring it down—

General WHITE. I understand perfectly. From where you sit, you would not be rational if it did not occur to you.

Mr. WHITTEN. The other side of it is, having just listened to your full and complete statement, you still have not pointed out a single development which has occurred since last year which adds anything, other than what your scientists have told you, what your research people have told you, and your sincere and honest belief that you stand by this alone. I still have not had one line of testimony about what has happened between last year and this year in BOMARC which might add any support to your belief.

General WHITE. We have Colonel Dietrich here, who is prepared——

Mr. WHITTEN. I do not think he was precluded a while ago. If I listened to Colonel Dietrich, I might feel that you ought to have more BOMARC's or that you ought not to have any. But if we have any voice in this, I think it ties back to: What is BOMARC? If it is good, maybe we ought to keep what we have. If it is not good, we ought to go all the way and get out.

General WHITE. You are entitled to every bit of information we can give you.

Mr. WHITTEN. Let me ask one question here. We keep referring to Canada. I should know, because I have been on this committee some time. What are our financial arrangements with Canada on SAGE and on the BOMARC sites in Canada?

General WHITE. In general, it is two-thirds United States and one-third Canadian.

(Discussion off the record.)

Mr. WHITTEN. I would like to ask this as a matter of procedure. We have spent all these months here doing the best job of conducting hearings we could. I do not believe I was even called today to the meeting. This complete reversal of defense plans is dumped right in our lap without prior notice.

How long ago did you advise the staff of our subcommittee on this possible change? Is it so delicate you did not feel you could indicate back when we were wasting our time on this other defense plan?

General WHITE. I believe on the 18th of February Mr. Sharp stated to this committee that we were reevaluating this and might come in with some changes.

Mr. FLOOD. Reevaluating what? All this?

General WHITE. This thing; yes, sir.

Mr. FLOOD. I do not remember anything like that. I will look at his testimony.

Mr. WHITTEN. Is that something he went back and put in? I don't remember any such presentation to this committee. Was that merely put in the record and that is the last we hear?

General FRIEDMAN. That was before the Armed Services Committee.

Mr. WHITTEN. You feel we should not expect the same secrets here that they might have over there?

General WHITE. It was some time ago—I do not know whether it was a matter of 2 weeks, 3 weeks, or 4 weeks ago—we asked the indulgence of the committee to delay the markup of this bill until we could come in with some proposals we had in mind.

Mr. WHITTEN. I will cease my questions. I want to say again I have been very greatly impressed by yourself and your associates here during your period before this committee. By my line of questioning I do not mean to question any area within which your influence and your voice can be heard that you have not met the issues squarely, and your decisions, I know, are a hundred percent sincere and honest and are a great credit to the wonderful record you have.

However, it still leaves us with the atmosphere I describe in which we all have our limitations, and my reference to these other things was just to try to point that out along with what you can do.

General WHITE. I appreciate that, sir. May I say perhaps you can sympathize with me in the things I have to face, too. When something comes up, I will step up to it, and if it requires coming to this committee or any other, I will ask to do it.

Mr. MAHON. I should make a statement here for the record, in view of some of the things that have transpired here in the last few moments. Several weeks ago, prior to our consideration of Air Force procurement, someone in the Air Force, probably General Friedman, came to me, and probably to Mr. Crosby of the staff, and said that some far-reaching studies had been in progress for some time in regard to BOMARC and this would effect air defense generally.

It was suggested that we not have a hearing on the BOMARC missile in view of the study, which could result in proposed changes effecting the whole picture. That I have understood all along and have anticipated a change in the air defense program, at least insofar as it affects BOMARC. Everybody on the committee has known that, I believe.

Mr. FLOOD. There was never any question that something would be done—we would review BOMARC, have a hearing about BOMARC. That has been agreed for 3 months here. However, I knew nothing until a couple of days ago that any major operation such as this presentation today was going to be engaged in. I am astounded that anybody else did.

Mr. WHITTEN. If the gentleman will yield to me, we are left in the position where we approve BOMARC by indirection, as this appears to me now.

Mr. MAHON. I do not want to leave the impression that I was notified as chairman of the subcommittee that there were any sweeping changes in prospect. I was just told that some significant changes were to be suggested in all probability, and that we should await a special hearing on the subject. I think the gentleman from Pennsylvania got as early notice as anybody else.

Mr. FLOOD. I am not talking about me. Do not worry about me. That is true—and earlier. As a matter of fact, confidentially, a little earlier, but that is something else.

Mr. LAIRD. We do not have to approve anything on BOMARC until we mark up the 1961 budget bill. This BOMARC reprogramming applies to the 1961 bill, this proposal before us.

Mr. MAHON. Mr. Flood.

Mr. FLOOD. I do not think I will ask anything.

Mr. MAHON. Does anybody on my left have questions at this time?

PROPOSED CUTOFF OF BOMARC PRODUCTION

Mr. LAIRD. General White, in listening to this hearing today it would seem to me that the program that has been set forth this morning provides for no cutback in BOMARC.

General WHITE. Yes, sir.

Mr. LAIRD. It is no cutoff in the program.

General WHITE. This would be tantamount to cutting further production orders as about the first of April.

Mr. LAIRD. But no cutback in anything that you have programmed in this current year's budget.

General WHITE. Nothing that we have on hand would not be used.

Mr. LAIRD. That is right; this is a cutoff of this particular air defense system.

General WHITE. That is right, sir.

Mr. LAIRD. This is the end of it?

General WHITE. There would be no further production available under this proposal after the BOMARCS that are on order as of April 1 or thereabouts. When they were completed, that would be the end of the program.

Mr. LAIRD. I am sure some members of the committee have been led to believe that there was actually going to be a cutback in the present BOMARC program. It seems to me this is a cutoff of next year's program.

General WHITE. We planned to have a considerably greater number of squadrons than this proposal calls for, so we cut back from that 1,080 missile proposal.

Mr. LAIRD. This was just a proposal in your budget. You had never had any funding approved on that proposal by our committee.

General WHITE. No; it had been the program along which we were proceeding, and the 1961 budget that we discussed here earlier was in furtherance of that program.

Mr. LAIRD. But that was just a proposal of the Air Force?

General WHITE. That is correct, sir.

Mr. LAIRD. There has never been approval of the 1961 BOMARC proposal at any time by any committee of the Congress. There was a proposal made here and you come up here now to amend your original 1961 proposal.

General WHITE. That is exactly right, sir.

Mr. LAIRD. I think it has been rather misleading as we have discussed it here. We have been talking about two different things sometimes.

Mr. GARLOCK. As far as the individual contractor is concerned that is engaged in this, what this amounts to is he will start to reduce. He will not start any new pieces, and his work will just taper down. When we talk about a reduction, it is a reduction from a planning figure. You are quite right, sir.

EXPENDITURE AVAILABILITY REMAINING AFTER REDUCTION

Mr. LAIRD. This decision must have been based on the feeling of the Air Force that this particular type of weapon system was not as reliable as you had first thought it might be.

Mr. GARLOCK. I do not think that is the reason for the change.

General WHITE. It is simply that in the light of the overall Air Force part of the Defense budget, we feel that by making these changes we obtain funds, as exemplified by our addenda, which will give us a better overall program than if we continued with the full program of BOMARC's which we presented in the 1961 budget.

Mr. LAIRD. In your particular program you will have available for expenditure in fiscal year 1961 \$500 million for BOMARC without any new obligational authority in the 1961 budget.

General FRIEDMAN. The budget request contemplated an additional procurement in the amount of about \$421 million. We have available

for expenditure approximately \$600 million against fiscal year 1960 and prior years which will expend during fiscal year 1961 and fiscal year 1962 of the unexpended amounts on the B missile accruing from contracts let primarily in 1958—a very small amount on the A's in 1959 and 1960—which in turn would add small amounts of expenditures in 1961.

Mr. LAIRD. The BOMARC expenditure budget in 1961 will be over \$500 million. I have just done this roughly here, but it would seem to me it would add up well over \$500 million in the expenditure budget for 1961.

General FRIEDMAN. True, it is a sizable amount.

General WHITE. Could I try again, Mr. Laird? Last year in the 1960 budget a certain number of BOMARCS were authorized and funded. In 1961 we came in with an additional increment to fund the program that we have had for some time as modified by the master air defense plan. This now would cut back the programs so that all the BOMARCS that would be bought under this program would be contained in the 1960 funding. All of the moneys that we had asked for in the 1961 budget for BOMARC-B's now come out and other projects are recommended for substitution.

IMPORTANCE OF FREQUENT REVIEW

Mr. LAIRD. This is the type of review that is being carried forward on a daily or weekly basis as far as the Air Force is concerned? As one member of the committee, I hope this is being done by all three services regularly. With the rapid changes that are going on in our weapon systems, it seems to me this is pretty important.

As one member of the committee, I certainly do not want to be in a position where I am critical of this sort of review by the Department of Defense. I think we have to rely upon you people to do just this.

General WHITE. I am sure that is the attitude of the committee—if I might say so, I believe it ought to be, because I think we should be encouraged, whenever we can to find a way to improve the security. We should come up with the changes.

I will say I think this is of a bit greater magnitude than we deal with from day to day, but we do often have minor reprogramings and sometimes fairly substantial ones. This is somewhat larger than the normal ones.

Mr. LAIRD. General Friedman, I am not sure in my own mind how the military construction funds are in balance. The amount that you take out on your proposed 1961 budget and your approved 1960 budget do not balance in the "Military construction" account.

General FRIEDMAN. In the overall construction area we do strike a balance. In SAGE specifically, "Military construction," there is a reduction of some \$54.3 million in fiscal year 1960 and there is a reduction of \$19.4 million in fiscal year 1961.

CHANGES TO FISCAL YEAR 1959 PROGRAM

Mr. LAIRD. It seems to me what you are doing here does not balance between these 2 years. You are going over into 2 different years in order to get your balance. What about the 1959 program?

General FRIEDMAN. The 1959 program, other than the BOMARC, certainly would be affected.

Mr. LAIRD. How do the 1959 changes show up here?

General FRIEDMAN. What we will do when we present the construction budget to you is show you all uncommitted funds from prior years. We will show you the program requirement. Then we will show a reduction in the amount of all uncommitted funds to come up with a net request for NOA. They will show up as a lump in the financing section of our "Military construction" appropriation.

We can show you from what programs these uncommitted balances were obtained. We have here in the runout the figures I gave for the 1960 and 1961. I would assume that all of the 1959 uncommitted balances were taken into effect, or will be taken into effect, in the final runout on the 1961 budget.

Mr. LAIRD. It would seem to me that this affects the 1959 budget. I cannot see how on the sheet that is given to us these 1959 figures are taken into consideration.

General FRIEDMAN. They are not shown on this chart but, as I say, we can show you what fiscal year 1959 funds are uncommitted and the extent they can be applied—either to the 1960 program or the 1961 program, I am not prepared to do that now.

Mr. GARLOCK. Mr. Laird, the supercombat center and the BOMARC balance out here. I am trying to remember whether we financed one or two of those supercombat centers in the 1959. If we did, that accounts for the difference.

General ESTES. When we started the supercombat center program, there were certain centers—you will recall on my chart I showed certain blank areas—there were certain centers that were to be constructed out of 1959 money that we deleted in favor of going ahead with the supercombat center program. That was reprogrammed out of the 1959 money, but they never got started.

General FRIEDMAN. In the "Construction" appropriation the additions represent an increase in program of \$97.5 million. The cutbacks—this is in fiscal 1960—represent a reduction of \$57.5 million. There is a net increase in program in fiscal year 1960 of \$40 million.

There is no change in 1961 requirements for new obligating authority. Obviously, there will be a change in the program composition. We will be financing different programs, but the funds do come out even.

Mr. LAIRD. The point that I think should be cleared up is this. The five sites you are cutting out were all funded in 1959. Your saving, if you come up with any saving, is a 1959 saving, and I cannot bring it in line with this particular funding presentation.

General FRIEDMAN. I can understand that. It does not show in this itemization. We will give you a reconciliation on it when we come before the Construction Subcommittee.

Mr. LAIRD. That is all.

Mr. MAHON. Mr. Lipscomb.

HARDENING OF SUPER-SAGE CONTROL CENTERS

Mr. LIPSCOMB. I believe you commented on the hardening of the super-SAGE control centers?

General WHITE. That is correct.

Mr. LIPSCOMB. How do you relate this to the fact that the ATLAS missile installations are going to be hardened to 100 p.s.i.?

General WHITE. Only by virtue of the numbers of missiles we will have and their dispersion. The same thing will apply to hardened missiles as to the super-SAGE combat centers. There were only eight of the supercombat centers, making a reduced target, any one of which caused a very great gap if knocked out in the defenses; whereas, with the missiles, knocking one or two or three of them out, with the quantities and dispersion we have, we would expect to make it a difficult problem for the enemy to target all of the sites.

Mr. LIPSCOMB. Do you know if there are any plans or thinking going on to increase the p.s.i. on the hardened missile sites?

General WHITE. No, sir.

EQUATION OF ONE AIRCRAFT FOR ONE MISSILE

Mr. LIPSCOMB. You have also discussed this afternoon the policy of one interceptor for one missile, which is rather an amazing equation as far as I am concerned. Could you explain to us for the record how this is arrived at and what is the theory behind this type of thinking?

General WHITE. I can only give my own opinion because I did not personally discuss this with NORAD or the Air Defense Command. I think the answer lies in the fact that the initial assault is the key to the air defense and that it is your initial mass weight against the enemy's early attack that really counts. General Estes may have consulted and gotten the philosophy and could add to or correct that.

Mr. LIPSCOMB. Mr. Chairman, could we have the NORAD or Air Defense Command policy in regard to this concept of one missile for one interceptor put in the record at this point?

Mr. MAHON. Give us a statement for the committee—I am sure you could not put it in the record, although if you can put something in the record, do so.

General ESTES. I have a copy of the electrical transmission the Air Defense Command sent to me on this subject.

Mr. MAHON. Just read it to us.

General ESTES. I would like to quote from the message from headquarters of the Air Defense Command relative to termination of the IM-99-B program and application of money to increase F-101 and F-106 buys:

(Off the record.)

General ESTES. Let me state parenthetically that the message referred to the plan as it has been shown to you in our revised program.

Mr. LIPSCOMB. Is that a general policy of not only NORAD but the Air Force, Department of Defense, and Joint Chiefs of Staff? Is that across-the-board assumption?

General ESTES. I would like to correct your assumption. This is the headquarters of the Air Defense Command talking, and I presume they have talked to NORAD about this. NORAD would have sent its message to the JCS.

NO OVERALL POLICY ON COMPARISON OF MISSILES WITH AIRCRAFT

General WHITE. I can answer your question in the negative. There is no overall defense or JCS policy as to the ratio of missiles to aircraft.

Mr. LIPSCOMB. A one-for-one basis makes quite a difference in the way the figures are submitted to the committee.

General WHITE. Yes; it makes a great difference in stating that the funds that might be saved from a complete cancellation of the BOMARC would provide an adequate defense if converted to fighter interceptors in the quantity that the money saved would buy. That is very true.

Mr. LIPSCOMB. I have some question on the BOMARC B and I would rather have a man sitting in that interceptor going after the target. This concept of one missile for one interceptor I do not understand.

COMPARISON OF BOMARC AND F-106 COSTS

Considering all of the BOMARC costs and that includes R.D.T. & E., etc., what will be the cost per squadron, and also the cost per missile?

General FRIEDMAN. Cost per missile, as I have indicated before, is approximately \$3.2 million. That figure is derived by taking all the missiles you would have delivered and dividing it into the total program cost—for the total program you contemplate—and that would mathematically compute to \$3.4 million.

That is the cost per bird delivered out over the program—it is not the cost-per-missile if you were to procure one as of today—that figure would be considerably less.

You want to know the cost per fighter on the F-106? That is \$4.4 million computed on the same basis.

Mr. LIPSCOMB. I did not include that.

General FRIEDMAN. I gave you the cost per missile. The investment cost of the squadron computed out at \$138.4 million. That figure includes all the R. & D. costs and development costs amortized in the first squadron. A typical squadron would run you considerably less than that, about \$30 million in capital investment.

I gave you the operating cost of \$2.8 million. That amount would accumulate over the time you had your squadrons in inventory.

Mr. LIPSCOMB. Are these the figures for the program that is before us today?

General FRIEDMAN. I am sorry.

Mr. LIPSCOMB. On the program that is before us today?

General FRIEDMAN. On the program that is before us today when you got most of your development costs, initial R. & D. out of the way, a typical squadron would be about \$30 million in capital investment. That is major equipment; the birds themselves, the initial spares, personnel transitional training, and so forth—including site acquisition, and base construction. That is not computed on today's program. In other words, I have given you a typical followon squadron's cost.

Would you like to know the cost of the BOMARC program, the total program we now present?

Mr. LIPSCOMB. Yes.

General FRIEDMAN. The cumulative program total for the R.D.T. & E., procurement, military construction, would be \$2.2 billion. If you were to compute that out it would average \$135 million per squadron.

Mr. GARLOCK. Could we add one thing there which would be important on any consideration? What is the cost left to be put in? You cannot possibly say what we spent last month.

General FRIEDMAN. The cost left to be put in would be \$40.4 million which we are requesting.

Mr. GARLOCK. No, General Friedman. I meant, what is left to be spent in the program to achieve this?

General FRIEDMAN. All you can save is the \$250 million which I indicated previously. Therefore, all the funds I have discussed here—less \$250 million—would be the amount already committed to the whole BOMARC program. In other words, you would waste some \$1.7 billion if you were to cancel out the program in its entirety.

PUBLICATION OF INFORMATION STATED TO BE CLASSIFIED

Mr. LIPSCOMB. General Holloway, in your statement when you discussed the ATLAS, I assume anything that is underlined is secret information?

General HOLLOWAY. Yes, sir; it is classified.

Mr. LIPSCOMB. Your statement says that six ATLAS ICBM squadrons go from 1 by 9, to 1 by 12, that is, from 9 launchers per squadron to 12 launchers per squadron. Is that secret information?

General HOLLOWAY. Yes.

(NOTE.—This information was not considered classified when this hearing was reviewed by the Air Force.)

Mr. LIPSCOMB. Then when these statements are made public about these actions you are taking today, we are confronted by constituents and newspapers asking what this all means to the ATLAS program.

Will I be able to tell them that this program will be increased from 9 launchers to 12 launchers per squadron?

General WHITE. I think, at the moment, not.

Mr. LIPSCOMB. I will explain why I am asking the question: On March 17, 1960, in a newspaper report from Los Angeles, one of our great papers out there, they had an article about the Ballistic Missiles Division. This article stated that a BMD spokesman discussed these figures which you have indicated are classified.

In this newspaper article, there is a story which says that under the plan for ATLAS expansion the last 6 of 13 missile squadrons now scheduled would have 12 launchers instead of 9. Then it goes on and discusses a proposed increased program for the TITAN.

I have attempted in recent weeks to get information from the Air Force which I could send to my constituents regarding the ATLAS program and I have been told in the past that the information was classified. I understand why we must classify certain information because of national security. However, when it is published in the papers it is hard to understand.

What kind of shenanigan is this when I can get this kind of information out of the paper, quoted from a spokesman from one of your own Divisions, and right here in this committee, I am told that it is secret?

Is there something that we can do about this or how should I answer people in southern California who have a vital interest in the ATLAS program?

General WHITE. I can only say it appears to me that BMD made a security break, but I have not heard that before.

I did not know it had been published and I should think that on the basis of that publication alone, this would have to be declassified.

Mr. LIPSCOMB. I have been looking into this because it has been of concern to me. On February 9 there were articles about the proposed construction of missile bases, both ATLAS and TITAN, in the papers, and this was explained in some detail—where the bases were to be, number of missiles, launchers, and types of silos. I attempted to verify these stories with the Air Force and asked them for copies of photographs and other information. I received a letter from the Air Force telling me that some of the information was classified and they could not give it to me to release. I think that we had better take a good look at this. If it is not classified for our national security, let us put it out officially and give the people a chance to look at it and know what the facts are.

General WHITE. I thoroughly agree with that.

Mr. LIPSCOMB. As of today, I am confronted with the question, when this proposed new plan is announced to the press, of verifying the fact that we are raising it from 9 to 12 per missile site, or just looking at them and saying, "I don't know." As a member of the Defense Appropriations Subcommittee I don't think this is right.

General WHITE. It is difficult, I know, but before I could give you even a personal opinion, it depends somewhat on what the newspaper story said. If it said that this was something that was going to be presented, or is something that is being considered, that is different, Mr. Lipscomb. There is a difference between speculation and verification of fact. I agree with you thoroughly that there is something out of gear and we ought to put it in order. I will do my best to see it is done.

Mr. LIPSCOMB. What I read is pretty close to the facts, is it not?

General WHITE. Yes.

Mr. GARLOCK. A lot of this material should be classified, but as soon as you start taking land and reporting it in the county courthouse, and things of that kind, it soon gets completely out of hand to keep it secret. In my experience with security officers, they tend to stay with the thing that is classified long after everybody can drive by on the road and see the site.

General WHITE. It just goes step by step.

Mr. LIPSCOMB. The spokesman at the Ballistic Missiles Division declined to discuss specific figures but acknowledged formally, and so on.

General WHITE. There is no question about it. Something is badly out of gear and we will try to straighten it out.

POSSIBLE INCREASE OF TITAN LAUNCHERS PER SQUADRON

Mr. LIPSCOMB. My time is up but I would like to ask, inasmuch as the Ballistic Missiles Division indicated they are preparing a plan for the TITAN program, is there anything now, or will there be any-

thing in the near future proposed for doing the same thing to the TITAN program as you are now proposing for the ATLAS program?

Mr. GARLOCK. We have under study with the Ballistic Missiles Division a review as to the most economical allocation of missiles per site. We run into problems of geography and geology and the number of people you can accommodate on a base, and a variety of problems. This is being restudied as a result of the change in the ATLAS, but whether or not we have a change is not in sight.

General WHITE. We have no concrete proposal at this time.

Mr. LIPSCOMB. I believe it is a good policy where it is recognized you can make changes not only for better defense of the country but also for economical operations.

General WHITE. If we could have those clippings, Mr. Lipscomb, I think it would be a considerable lever on the classification people to declassify this.

Mr. LIPSCOMB. I will be glad to show you the whole file, General.

Thank you, Mr. Chairman.

Mr. MAHON. Mr. Thomson?

Mr. THOMSON. Gentlemen, I, too, sitting on this side of the table, want to congratulate you on the fact that our military program is under continuous study and review. In the light of technological progress we have been making and the challenge it poses, I would expect to see changes in the program. In fact, I think sometimes our tendency is to stay put too long. There are some things that concern me though.

REPLACEMENT OF BOMARC WITH INTERCEPTORS

In the first place, I take that by reason of reducing the BOMARC program you feel that you have to fill in the air defense with something else and you have decided that you need this interceptor plus improvement; is that correct?

General WHITE. We need the improvements to the interceptors. There are no additional interceptors provided under our program.

Mr. THOMSON. That is, as far as the air defense program is concerned?

General WHITE. Yes, sir.

Mr. THOMSON. The chairman has gone into the fact that there is nothing in here for the air alert, so-called.

As I subtract out your interceptor improvement from the total reductions, it leaves some \$385.5 million. That is the reduction after the interceptor improvement was added on; is that right?

General HOLLOWAY. That is not counting the \$123.7 million savings.

Mr. THOMSON. That is correct.

General HOLLOWAY. It is \$257 million otherwise.

Mr. THOMSON. I did not take into consideration the \$123.7 million savings.

Following the thought of the chairman with regard to air alert, and even going further into what the Air Force asked according to information furnished, it would appear that any change in the B-70 program was not considered of high enough priority to come within this request, even by the Air Force; is that correct?

General WHITE. A decision has been made on the B-70, Mr. Thomson. I have long learned that there are some things you do not ask for when you know you are not going to get them. That is about where we stand on that.

TRANSITION OF AIR NATIONAL GUARD TO F-102 FIGHTERS

Mr. THOMSON. I note that the Guard is equipped, or is to be equipped, with F-102 fighters?

General WHITE. Yes, sir.

Mr. THOMSON. It was my understanding, and I generally got this from the chart, that there will be an overall reduction in the number of National Guard fighter squadrons; is that correct?

General ESTES. The chart was simply attempting to show the number equipped with the F-102, based on the number of F-102 available.

Mr. THOMSON. Information I have received would indicate that as we moved into this hotter type of pursuit ship, it becomes more and more difficult for the Guard to handle them. I was told by one guard pilot that it took an hour or two to be briefed and then you had to come down and spend 5 or 6 hours to be debriefed. It was suggested that as a civilian soldier, with job and family responsibilities, he just could not get in enough hours of flying to keep competent under that type of requirement.

General WHITE. We anticipate that trouble, Mr. Thomson. The fact of the matter is that the National Guard in jet-type aircraft have done extraordinarily well. This is based partly on the fact that we now feel that we can really give them first-line equipment and give them a big mission in the air defense field. We have certain changes in the Reserve organization which we hope to institute which will give them practically a first-line status by placing these units under the Air Defense Command instead of under CONAC so they will be directly in the operational command chain.

CONVERSION OF AIR GUARD SQUADRONS TO TRANSPORT MISSION

Mr. THOMSON. From conversations I had with Guard personnel when recently there was a group of them here studying roles and missions, and so forth, I understood that they were thinking in terms—and the Air Force was thinking in terms—of their going over to troop transports and back up MATS.

General WHITE. Some squadrons will be converted to C-97's.

General WEBSTER. We have converted six already to the C-97.

Mr. THOMSON. My concern was really, can a guardsman, in your opinion, be expected to fly this advanced fighter that is pretty hot?

General WHITE. The record to date shows they can.

Mr. THOMSON. You expect them to put in the amount of time required to maintain their proficiency in the air and still have all of these briefings and debriefings?

General WHITE. I think that probably the active service of a civilian fighter pilot, and by that I mean his service as an active pilot, will be shorter than it will for those who are in the regular service. We continue to train new National Guard pilots. The input will take care of that so that I anticipate that they will be competent to do this.

General ESTES. In this regard, it is very interesting to note that in the fighter weapons in which the Guard squadrons compete with Air Force units equipped with the same aircraft, last year the Guard won and this year they came in second. This indicates they have a high degree of competence.

RETENTION OF AIR GUARD PILOTS

Mr. THOMSON. I do not question, and I am very pleased with their competence, but the basis for my question was conversations I had with commanders that were in here studying this problem. Some of them told me that when it came to retaining and acquiring their pilot strength, that as this training time increased to get in 1 hour of flying, and as it kept going up, they were reaching a point where there was a real problem for a man to take that amount of time off from his job and his family to maintain flight proficiency. That was the problem.

General WHITE. I think there is an obverse to that, too.

I think that some people will fall out but I think the attractiveness of having a real active mission in an active combat command will bring in new blood to replace those who fall out.

MAINTENANCE OF PROFICIENCY IN F-102

Mr. THOMSON. How many hours per month in the air do you expect of the Guard pilot who is going to fly an F-102?

General WEBSTER. Our current program calls for 105 hours. It is very close to that, per year.

Mr. THOMSON. Per year?

General WEBSTER. That is correct, plus some in the T-33.

Mr. THOMSON. Is that to maintain proficiency in the airplane or do they need to get in a little more?

General WEBSTER. This is a very difficult problem to answer categorically.

Mr. THOMSON. They tell me that that is what they can get paid for but they have to fly more than that if they are going to be proficient. Even assuming 10 hours per month, it would amount to quite a bit with 6 hours of briefing and debriefing and it might amount to 80 hours a month or 60 hours a month.

General WHITE. Six hours debriefing sounds all out of proportion to me.

Mr. THOMSON. I do not want to pursue this unduly, but they tell me they have to telephone some headquarters people and explain why they did do something, or why they did not do something.

General WHITE. I have no doubt with this change there will be some adjustments, but on balance, I have no doubt the program will go.

Mr. THOMSON. As mentioned, I was pleased to see that you are re-evaluating military programs. I am pleased with this step as far as the missile program is concerned, in getting additional missiles in a critical period. I hope you are continuing with measures to go further and we will still get an estimate of what we could do if we were to limit the TITAN to six squadrons, and to fill in with ATLAS squadrons at an earlier date.

General FRIEDMAN. If this is one of the questions you asked, I believe we responded to it. I have seen a number of them come over, and I cannot swear whether that one has.

Mr. THOMSON. The staff advises me that that report has been furnished.

General FRIEDMAN. Fine. You have been most patient, Mr. Thomson.

Mr. GARLOCK. You understand that answering the question does not mean we concur with it?

Mr. THOMSON. I understand that perfectly.

Thank you, Mr. Chairman.

Mr. MAHON. We began hearings on the Defense appropriation bill on January 11 of this year and we have had continuous hearings Monday through Friday, I believe. There may have been an exception but I do not recall it to mind.

We have received a tremendous amount of information in regard to our air defense and with regard to the overall defense program.

We have heard the Secretary of Defense and members of the Joint Chiefs of Staff and we have heard individual Services. We have heard the requirements for personnel, for operation and maintenance, and we have listened to weeks of testimony in regard to procurement, as well as other items.

This additional presentation in connection with your proposed changes that must be taken into consideration as a part of the overall pattern and the overall presentation which was made through the years—this may mean that in view of some of the aspects of this matter we may desire to print today's hearings next week for clarification in the event an announcement is made by the Air Force, by the Department of Defense, by the Bureau of the Budget, or others.

We would not release this information without conferring with the Air Force.

I would like, again, to bring up the matter of airlift. We have had lots of testimony on this from all of the services.

Some of it appears in the printed record and some of it was off the record.

AIRLIFT

I would like for you to give us a statement absolutely nailing down the dollars you would utilize for airlift, insofar as you can under the proposal you presented to the Department of Defense in connection with this adjustment in the Air Force's program.

You can put that in the record in part or you can give it to us as a separate document.

(The information requested follows:)

In the initial presentation to Office, Secretary of Defense, the Air Force requested an additional \$32 million for the C-130B and an additional \$75 million for MATS modernization.

Mr. Garlock, we have been pleased to have you here before the committee. Is there anything further you or General White would like to present before we conclude? In other words, have you given us the complete picture? If not, what do we need to fill it out at this time?

Mr. GARLOCK. I think we have given you the picture as completely as we can. On behalf of the Air Force we wish to thank you and the members of the committee for the special hearing that we have had today and the very fine and cooperative approach toward solving a most difficult problem, a problem of change. We recognize we are coming up with a fairly major change, and we appreciate your hearing us.

Mr. MAHON. We will take this testimony into consideration along with all the other testimony given. We realize you will be available to supply us additional information which we may require before we make up our minds as to what we shall recommend for approval by Congress. The Secretary of Defense advised me personally about this matter to some limited extent last week. He talked about the trip he had to make, I believe to NATO headquarters. He said he would work with us closely upon his return, in regard to any adjustments or changes in the program. So we will expect to have further amplification of the program in some respects before we take final action.

We appreciate your cooperation along those lines, and I am sure we will have it.

Thank you very much, gentlemen.

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